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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/512,592	02/23/2000	Bruce M. Dickens	2039-301	3314
BRUCE DICKI	7590 03/16/200 E <b>NS</b>	EXAMINER		
DICKENS-SOEDER 2000 LLC			LEROUX, ETIENNE PIERRE	
3892 CEDRON STREET IRVINE, CA 92606			ART UNIT	PAPER NUMBER
			2161	
			MAIL DATE	DELIVERY MODE
			03/16/2009	PAPER

# Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

#### UNITED STATES PATENT AND TRADEMARK OFFICE

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# BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte DICKENS-SOEDER2000, LLC

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Appeal 2008-4652
Reexamination Control Nos. 90/005,727; 90/005,592; 90/005,628; and 90/006,541 (merged)
Reissue Application No. 09/512,592 (merged)
U.S. Patent No. 5,806,063
Technology Center 2100

Decided: March 16, 2009

Before ROMULO H. DELMENDO, SCOTT R. BOALICK, and KEVIN F. TURNER, *Administrative Patent Judges*.

BOALICK, Administrative Patent Judge.

<sup>&</sup>lt;sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

#### **DECISION ON APPEAL**

Dickens-Soeder2000, LLC and Bruce Dickens appeal under 35 U.S.C. §§ 134(a), 134(b), and 306 from a final rejection of claims 1-76.<sup>2</sup> We have jurisdiction under §§ 6(b), 134(a), 134(b), and 306. We AFFIRM.

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<sup>&</sup>lt;sup>2</sup> Mr. Bruce Dickens, who does not appear to be a registered practitioner and is the reissue applicant, filed the Appeal Brief "individually as the inventor of United states [sic] Patent No. 5,806,063." (App. Br. 1.) The patent is said to be assigned to Dickens-Soeder2000, LLC, of which Mr. Dickens is said to be a member. (*Id.*) It appears that the Examiner has determined that Mr. Dickens has authority to act on behalf of the patent owner. *See* 37 C.F.R. § 1.565.

Appeal 2008-4652			
Reexamination Control Nos. 90/005,727; 90/005,592; 90/005,628; and			
90/006,541 (merged)			
Reissue Application No. 09/512,592 (merged)			
U.S. Patent No. 5,806,063			
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Reexamination Control Nos. 90/005,727; 90/005,592; 90/005,628; and 90/006,541 (merged)

Reissue Application No. 09/512,592 (merged)

U.S. Patent No. 5,806,063

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## STATEMENT OF THE CASE

Merged Reexamination and Reissue proceedings

U.S. Patent 5,806,063 (the '063 patent), entitled "Date Formatting and Sorting for Dates Spanning the Turn of the Century," issued September 8, 1998 to Bruce Dickens based on application number 08/725,574 (the '574 application), filed October 3, 1996. The '063 patent issued with claims 1-15. A certificate of correction for the '063 patent issued on December 29, 1998. The certificate of correction corrected two minor typographical errors. The

real party in interest is said to be the patent owner, Dickens-Soeder2000, LLC. (App. Br. 1.)

The Director of the USPTO, on his own initiative, ordered reexamination of the '063 patent on December 21, 1999 and the reexamination proceeding was assigned control number 90/005,592 (the '5592 proceeding). A request for reexamination of the '063 patent was filed on February 2, 2000 by third party requester Paul E. Crawford (Requester #1) and the reexamination proceeding was assigned control number 90/005,628 (the '5628 proceeding). The patent owner filed a reissue application that added claims 16-76 on February 23, 2000, and the reissue application was assigned application number 09/512,592 (the '2592 application). A request for reexamination of the '063 patent was filed on May 16, 2000 by third party requester Ross F. Hunt Jr. (Requester #2) and the reexamination proceeding was assigned control number 90/005,727 (the '5727 proceeding). The '5592 proceeding, the '5628 proceeding, the '2592 application, and the '5727 proceeding were merged in a decision mailed on November 6, 2000. A request for reexamination of the '063 patent was filed on February 7, 2003 by third party requester Stanley B. Green (Requester #3) and the reexamination proceeding was assigned control number 90/006,541 (the '6541 proceeding). The '6541 proceeding was merged into a single consolidated proceeding with the '5592 proceeding, the '5628 proceeding, the '2592 application, and the '5727 proceeding in a decision mailed March 12, 2004.

## Appellant's invention

The claimed invention relates to reformatting dates stored in databases to allow, for example, processing of dates spanning from before to after the year 2000. ('063 patent, Abstract, col. 2, ll. 22-25.) In particular, "[t]he present invention relates to the problem of dealing with legacy databases wherein data is stored in a form that is ambiguous as to the century, the so-called Y2K problem." (App. Br. 2.)

## The references

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Shaughnessy US 5,630,118 May 13, 1997

(filed Nov. 21, 1994)

Hazama JP 05-027947 Feb. 5, 1993

B.G. Ohms, Computer Processing of Dates Outside the Twentieth Century, 25, No. 2 IBM Sys. J. 244 (1986) ("Ohms").

Booth et al., Clipper 5, A Developer's Guide, 1991 ("Booth").

## The rejections

Summary

The Examiner rejected claims 16-67, 69-72,<sup>3</sup> 75, and 76 under 35 U.S.C. § 112, first paragraph. (Ans. 3; Final Office Action of June 10, 2005 ("FA") at 3; Office Action of October 27, 2004 ("OA") at 5-9.)<sup>4</sup> The Examiner rejected claims 1-76 under 35 U.S.C. § 112, second paragraph. (Ans. 3; FA 3; OA 5-9.) The Examiner also rejected claims 1-76 as being unpatentable over the prior art. (Ans. 3; FA 3-14; OA 9-184.) The rejections are listed in detail below.

<sup>&</sup>lt;sup>3</sup> The office action (OA 5) erroneously states that claim 73 was rejected under 35 U.S.C. § 112, first paragraph. Claim 73 only was rejected under the second paragraph of 35 U.S.C. § 112 (OA 9). Therefore, we consider the inclusion of claim 73 to be a typographical error.

<sup>&</sup>lt;sup>4</sup> USPTO procedures require that rejections be fully repeated in the Examiner's Answer and that the Board not be referenced to other actions in the file. MPEP § 1207.02 ("An examiner's answer should not refer, either directly or indirectly, to any prior Office action without fully restating the point relied on in the answer."). Here, the Answer does not repeat the rejections and the Final Office Action of June 10, 2005 ("FA") incorporates by reference the detailed rejections found in the Office Action of October 27, 2004. In the interest of administrative and judicial economy, we have overlooked this failure to follow procedure. However, in future appeals an administrative remand would be appropriate. Thus, throughout this opinion reference is made to the Office Action of October 27, 2004 ("OA") for details of the rejections.

Reexamination Control Nos. 90/005,727; 90/005,592; 90/005,628; and 90/006,541 (merged)

Reissue Application No. 09/512,592 (merged)

U.S. Patent No. 5,806,063

## 35 U.S.C. § 112, First Paragraph

Claims 16-67, 69-72,<sup>5</sup> 75, and 76 stand rejected under 35 U.S.C. § 112, first paragraph, "as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors), at the time the application was filed, had possession of the claimed invention." (FA 3; OA 5-9.)

## 35 U.S.C. § 112, Second Paragraph

Claims 1-76 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. (FA 3; OA 5-9.)

#### **Obviousness**

Claims 1-3, 5, 7, 9 and 10 stand rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy and Hazama. (FA 3; OA 10-16.)

Claims 4, 6, and 8 stand rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy, Hazama, and Booth. (FA 4; OA 16-18.)

Claims 11-15 stand rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy, Hazama, and Booth. (FA 4; OA 18-23.)

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<sup>&</sup>lt;sup>5</sup> See n.3 supra regarding the erroneous inclusion of claim 73 in this rejection.

<sup>&</sup>lt;sup>6</sup> In the detailed explanation of the rejections (OA 6-9), the Examiner also rejects these claims for lack of an enabling disclosure.

<sup>&</sup>lt;sup>7</sup> The Final Office Action of June 10, 2005 erroneously states that claims 11-15 were rejected as being obvious over Shaughnessy and Hazama (FA 3) rather than Shaughnessy, Hazama, and Booth (OA 18-23).

Reexamination Control Nos. 90/005,727; 90/005,592; 90/005,628; and 90/006,541 (merged)

Reissue Application No. 09/512,592 (merged)

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Claims 16-18, 20, 22, 24, and 25 stand rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy and Hazama. (FA 4; OA 23-28.)

Claims 19, 21, and 23 stand rejected under 35 U.S.C. § 103(a) as

being obvious over Shaughnessy, Hazama, and Booth. (FA 4; OA 26-28.)

Claims 26-30 stand rejected under 35 U.S.C. § 103(a) as being

obvious over Shaughnessy, Hazama, and Booth. (FA 4; OA 30-35.)

Claim 31 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy and Hazama. (FA 5; OA 35-38.)

Claim 32 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy, Hazama, and Booth. (FA 5; OA 38-41.)

Claim 33 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy and Hazama. (FA 5; OA 41-44.)

Claims 34-59 stand rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy, Hazama, and Booth. (FA 5; OA 44-55.)

Claim 60 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy, Hazama, and Booth. (FA 5; OA 55-58.)

Claim 61 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy, Hazama, and Booth. (FA 6; OA 58-62.)

Claim 62 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy, Hazama, and Booth. (FA 6; OA 62-65.)

Claim 63 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy, Hazama, and Booth. (FA 6; OA 65-69.)

Reexamination Control Nos. 90/005,727; 90/005,592; 90/005,628; and 90/006,541 (merged)

Reissue Application No. 09/512,592 (merged)

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Claim 64 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy, Hazama, and Booth. (FA 6; OA 69-72.)

Claim 65 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy, Hazama, and Booth. (FA 7; OA 72-76.)

Claim 66 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy and Hazama. (FA 7; OA 76-79.)

Claim 67 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy and Hazama. (FA 7; OA 79-81.)

Claim 68 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy and Hazama. (FA 7; OA 81-84.)

Claim 69 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy and Hazama. (FA 7; OA 84-86.)

Claim 70 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy, Hazama, and Booth. (FA 7; OA 86-90.)

Claim 71 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy, Hazama, and Booth. (FA 8; OA 90-93.)

Claim 72 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy and Hazama. (FA 8; OA 93-96.)

Claim 73 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy and Hazama. (FA 8; OA 96-98.)

<sup>&</sup>lt;sup>8</sup> The Final Office Action of June 10, 2005 erroneously states that claim 66 was rejected as being obvious over Shaughnessy, Hazama, and Booth (FA 7) rather than Shaughnessy and Hazama (OA 79-79).

Claim 74 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy, Hazama, and Booth. (FA 8; OA 98-101.)

Claim 75 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy and Hazama. (FA 8; OA 101-104.)

Claim 76 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy, Hazama, and Booth. (FA 9; OA 104-107.)

Claims 1-3, 5, 7, 9, and 10 stand rejected under 35 U.S.C. § 103(a) as being obvious over Ohms and Hazama. (FA 9; OA 107-111.)

Claims 4, 6, and 8 stand rejected under 35 U.S.C. § 103(a) as being obvious over Ohms, Hazama, and Booth. (FA 9; OA 111-113.)

Claims 11-15 stand rejected under 35 U.S.C. § 103(a) as being obvious over Ohms, Hazama, and Booth. (FA 9; OA 113-117.)

Claims 16-18, 20, 22, 24, and 25 stand rejected under 35 U.S.C.

§ 103(a) as being obvious over Ohms and Hazama. (FA 10; OA 117-121.) Claims 19, 21, and 23 stand rejected under 35 U.S.C. § 103(a) as

being obvious over Ohms, Hazama, and Booth. (FA 10; OA 121-123.)

Claims 26-30 stand rejected under 35 U.S.C. § 103(a) as being obvious over Ohms, Hazama, and Booth. (FA 10; OA 124-127.)

Reexamination Control Nos. 90/005,727; 90/005,592; 90/005,628; and 90/006,541 (merged)

Reissue Application No. 09/512,592 (merged)

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Claim 31 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms and Hazama. (OA 127-128.)<sup>9</sup>

Claim 32 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms, Hazama, and Booth. (FA 10; OA 129-131.)

Claim 33 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms and Hazama. (FA 10; OA 131-133.)

Claims 34-59 stand rejected under 35 U.S.C. § 103(a) as being obvious over Ohms, Hazama, and Booth. (FA 11; OA 133-143.)

Claim 60 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms, Hazama, and Booth. (FA 11; OA 144-146.)

Claim 61 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms, Hazama, and Booth. (FA 11; OA 146-149.)

Claim 62 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms, Hazama, and Booth. (FA 11; OA 149-151.)

Claim 63 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms, Hazama, and Booth. (FA 11; OA 151-154.)

Claim 64 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms, Hazama, and Booth. (FA 12; OA 154-157.)

<sup>9</sup> The Final Office Action of June 10, 2005 appears to have inadvertently omitted this rejection (FA 10) due to the inadvertent omission in the Office Action of October 27, 2004 (OA 127) of the portion of the statement of the

rejection found at page 139 of the Office Action mailed July 22, 2002. A complete statement of the rejection may be found at pages 139-141 of the Office Action mailed July 22, 2002. We consider these omissions to be typographical errors.

Reexamination Control Nos. 90/005,727; 90/005,592; 90/005,628; and 90/006,541 (merged)

Reissue Application No. 09/512,592 (merged)

U.S. Patent No. 5,806,063

Claim 65 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms, Hazama, and Booth. (FA 12; OA 157-160.)

Claim 66 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms, Hazama, and Booth. (FA 12; OA 160-162.)

Claim 67 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms, Hazama, and Booth. (FA 12; OA 162-164.)

Claim 68 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms and Hazama. (FA 12; OA 164-166.)

Claim 69 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms, Hazama, and Booth. (FA 13; OA 166-169.)

Claim 70 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms, Hazama, and Booth. (FA 13; OA 169-171.)

Claim 71 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms, Hazama, and Booth. (FA 13; OA 171-174.)

Claim 72 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms and Hazama. (FA 13; OA 174-176.)

Claim 73 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms and Hazama. (FA 13; OA 176-178.)

Claim 74 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms, Hazama, and Booth. (FA 14; OA 178-180.)

Claim 75 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms, Hazama, and Booth. (FA 14; OA 180-182.)

Claim 76 stands rejected under 35 U.S.C. § 103(a) as being obvious over Ohms, Hazama, and Booth. (FA 14; OA 182-184.)

#### FINDINGS OF FACT

The record supports the following findings of fact (FF) by a preponderance of the evidence.

#### The '063 Patent

1. According to the Specification, "[t]he present invention provides an approach to the representation and utilization of dates stored symbolically in databases." ('063 patent, col. 1, ll. 49-51.) "Existing symbolic date representations are converted to a more useful form of symbolic date representations without the addition of new data fields, and in a manner that is performed automatically by the computer and requires no user input." ('063 patent, col. 1, ll. 51-55 (emphasis added).) "The approach of the invention permits direct numerical sorting of dates." ('063 patent, col. 1, ll. 55-56.)

# 2. Figure 1 of the '063 patent is reproduced below:

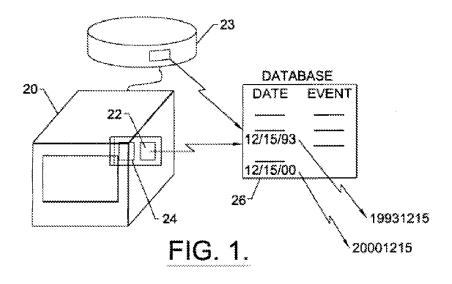


Figure 1 "is a schematic representation of a computer database with date information therein." ('063 Patent, col. 2, 11. 36-37.)

As shown in Figure 1, a computer 20 has "a read-only or random-access memory 22, a mass-storage device 23, and a central processing unit 24 therein." ('063 patent, col. 2, 1l. 44-46.) A database 26 is stored in the memory 22 or on the mass-storage device 23 and "includes information in the form of symbolic representations of dates and associated information such as events occurring on the respective dates." ('063 patent, col. 2, 1l. 46-50.)

3. The Specification teaches that "[i]n a conventional approach, the dates are stored in a format such as  $M_1M_2/D_1D_2/Y_1Y_2$  format. M indicates month information, D day information, and Y year information, with

the subscript 1 or 2 indicating the first or second digit of the designator, respectively." ('063 patent, col. 2, ll. 50-55.) Thus, "Dec. 15, 1993 is stored as 12/15/93 or 12-15-93, and Dec. 15, 2000 is stored as 12/15/00 or 12-15-00, for example." ('063 patent, col. 2, ll. 55-57.) The Specification explains that "[i]f a numerical sort is performed on these dates, 12/15/00 will sort chronologically prior to 12/15/93." ('063 patent, col. 2, ll. 57-59.)

## 4. Figure 2 of the '063 patent is reproduced below:

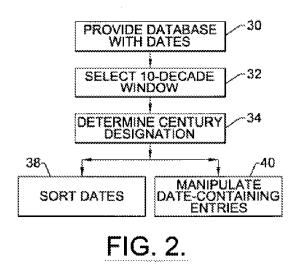


Figure 2 "is a block flow diagram of a preferred approach for practicing the approach of the invention." ('063 patent, col. 2, 11. 38-39.)

At numeral 30, a computer database 26 is provided "having symbolic representations of dates stored therein." ('063 patent, col. 2, 11. 60-62.)

At numeral 32, a 10-decade window is selected. ('063 patent, col. 3, 1.

4.) "That is, it is necessary that all dates in the database will be within some period of 10 decades, or 100 years." ('063 patent, col. 3, 11. 4-6.) The Specification teaches that:

The window may be arbitrarily selected. For example, the decade could begin with the 1950's and end with the 2040's, or it could begin with the 1980's and end with the 2070's. The 10-decade window will normally include some decades from the prior century and some from the new century.

('063 patent, col. 3, 11. 8-12.)

- 5. According to the Specification, "[t]he first year of the 10-decade window is represented by  $Y_AY_B$ " ('063 patent, col. 3, ll. 13-14) and "[i]n a commonly utilized application,  $Y_B$  is 0 (zero)" ('063 patent, col. 3, l. 14) such that, for example "the 1980's first decade would be represented by  $Y_A0$  of '80" ('063 patent, col. 3, ll. 17-18).
- 6. The Specification states that, "[f]or this case, a century designator C<sub>1</sub>C<sub>2</sub> for a date is determined, numeral 34, by comparing the value of Y<sub>1</sub>, the first digit of the year designator for the date, with Y<sub>A</sub>, the first digit of the first decade of the 10-decade window." ('063 patent, col. 3, ll. 18-21.) Then, "C<sub>1</sub>C<sub>2</sub> is assigned a first value if Y<sub>1</sub> is less than Y<sub>A</sub>

and a second value if  $Y_1$  is equal to or greater than  $Y_A$ ." ('063 patent, col. 3, 11. 21-23.)

- 7. The Specification teaches that "[i]n the case of most interest, the 10-decade window includes decades earlier than the year 2000 and decades later than the year 2000, and Y<sub>B</sub> is zero C<sub>1</sub>C<sub>2</sub> is assigned '20' if  $Y_1$  is less than  $Y_A$  and is assigned '19' if  $Y_1$  is equal to or greater than  $Y_A$ ." ('063 patent, col. 3, 11. 24-28.) "In that case and for example, if Y<sub>A</sub> is 5, meaning that the decade beginning in 1950 was selected as the first decade of the 10-decade window, and if  $Y_1Y_2$  is "43", the century designator  $C_1C_2$  is '20', indicating that the year in question in the database is 2043." ('063 patent, col. 3, 11. 28-32.) "On the other hand, if  $Y_1Y_2$  is '63', the century designator  $C_1C_2$  is '19', indicating that the year in question in the database is 1963." ('063 patent, col. 3, 11. 32-34.) "This selection process is performed in a completely automated fashion by the computer, without human input other than to select the starting date of the 10-decade window." ('063 patent, col. 3, 11. 35-37.)
- Next, the Specification teaches that "[t]he symbolic representations of the dates in the database are reformatted with the values C<sub>1</sub>C<sub>2</sub>, Y<sub>1</sub>Y<sub>2</sub>, M<sub>1</sub>M<sub>2</sub>, and D<sub>1</sub>D<sub>2</sub>, numeral 36<sup>10</sup> of FIG. 2." ('063 patent, col. 3, ll. 38-40.) "Once the symbolic representations of the dates are

<sup>&</sup>lt;sup>10</sup> Numeral 36 is not shown in Figure 2.

reformatted according to the procedures set forth above, the date information may be sorted, numeral 38, or otherwise manipulated, numeral 40, together with the entries associated with the dates." ('063 patent, col. 3, 11. 49-53.) "Such manipulation may include handling of data associated with the dates, storing the dates and associated information back in the data base, or other processes." ('063 patent, col. 3, 11. 53-56.)

- 9. The Specification also states: "The approach of the invention has been implemented in a computer program, a copy of which is attached as Exhibit A. This program converts dates both before and after the year 2000." ('063 patent, col. 3, 11. 57-60.) However, no computer program is shown in either the printed '063 patent or in the certificate of correction. In addition, there is nothing labeled "Exhibit A" shown in either the printed '063 patent or in the certificate of correction.
- 10. Claim 1 on appeal is reproduced below:
  - 1. A method of processing symbolic representations of dates stored in a database, comprising the steps of

providing a database with symbolic representations of dates stored therein according to a format wherein  $M_1$   $M_2$  is the numerical month designator,  $D_1$   $D_2$  is the numerical day designator, and  $Y_1$   $Y_2$  is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time;

selecting a 10-decade window with a  $Y_A Y_B$  value for the first decade of the window,  $Y_A Y_B$  being no later than the earliest  $Y_1 Y_2$  year designator in the database;

determining a century designator  $C_1$   $C_2$  for each symbolic representation of a date in the database,  $C_1$   $C_2$  having a first value if  $Y_1$   $Y_2$  is less than  $Y_A$   $Y_B$  and having a second value if  $Y_1$   $Y_2$  is equal to or greater than  $Y_A$   $Y_B$ ; and

reformatting the symbolic representation of the date with the values  $C_1$   $C_2$ ,  $Y_1$   $Y_2$ ,  $M_1$   $M_2$ , and  $D_1$   $D_2$  to facilitate further processing of the dates.

# Shaughnessy

- 11. Shaughnessy "relates to a system and method for modifying and operating a computer system to perform date operations on date fields having a two digit representation for the year without erroneously mistaking the years 2000 et seq. for the years 1900 et seq." (Col. 1, 11. 11-15.)
- 12. Shaughnessy teaches that one possible solution for the above noted problem (the "Y2K problem") "would be to convert all dates within the application system of the computer to use date fields with four digit representations for the year." (Col. 1, Il. 31-33; *see also* col. 4, Il. 11-16.) As part of such a solution, "the files which contain the data for the date operation routine(s) would also have to be converted to include date fields having a three or four digit representation for the year." (Col. 4, Il. 20-23.) According to Shaughnessy, "[t]his could be

an expensive and time consuming process" (col. 4, 11. 23-24; *see also* col. 1, 11. 33-46) and "[a] more expedient, less expensive solution to the problem would be to modify the computer system in accordance with the principles of the present invention" (col. 4, 11. 24-26).

13. Under the approach of Shaughnessy, "the current date operation routines nested in the body of the application program would be replaced with a call to one of a plurality of subroutines stored externally from the existing application program, as opposed to the date operation routine being reprogrammed to perform the date operation in a new format." (Col. 4, 1l. 27-33.) "The subroutines will be able to accommodate the date format currently employed by the application program, thus making it unnecessary to convert all of the date fields in files containing data used by the application program over to the new date format." (Col. 4, 11. 33-37.) In one aspect, "[t]he call is operative to pass at least one date field which is representative of at least two dates to the subroutine which has been called." (Col. 2, 11. 18-20.) The subroutine determines "which of the at least two dates corresponds to the date field according to a predetermined criteria, perform[s] the date operation on the passed date field and return[s] a parameter representative of the result of the date operation to the application program for use by the application program in its further operations." (Col. 2, 11, 20-26.) "Preferably, a plurality of subroutines are stored that perform respective date operations selected from the

group consisting of a date conversion operation, a date comparison operation, a date difference calculation operation, etc." (Col. 2, 11. 26-30.)

# 14. Figure 1 of Shaughnessy is reproduced below:

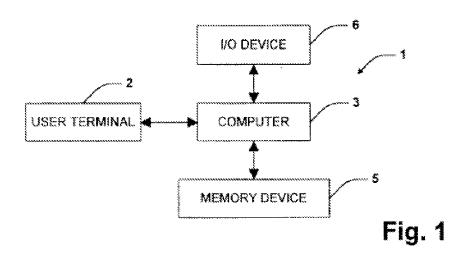


Figure 1 "is a schematic block diagram of a computer system that may be used to practice the present invention." (Col. 3, Il. 9-10.)

Figure 1 shows "an exemplary computer system 1 that may be modified in accordance with the principles of the present invention." (Col. 3, 1l. 46-48.) The computer system 1 includes a user terminal 2, such as a keyboard and monitor, connected to a computer 3, which "may include or be connected to an internal or external memory

device 5, and also to other input or output devices 6." (Col. 3, 11. 48-55.)

## 15. Figure 2 of Shaughnessy is reproduced below:

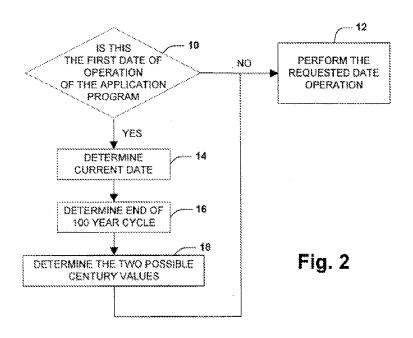


Figure 2 "is a flowchart illustrating the steps the modified computer system performs when first encountering a date operation." (Col. 3, ll. 11-13.)

When a date operation subroutine is called by an application program, the system determines if this is the first date operation of the application program (box 10). (Col. 5, Il. 10-13.) "If it is the first date operation, the subroutine which determines the current date (box 14), the end of the 100 year cycle (box 16), and the two possible

century values (box 18) will be called and the information calculated before the date operation is performed." (Col. 5, Il. 16-21.) This "information will be used in the subroutine(s) to assign a century value to the two digit representation of the year of the dates to be operated on such that the subroutine can accurately perform its intended function." (Col. 5, Il. 21-25.)

16. Figures 3 through 7 "illustrate how a computer system . . . modified in accordance with a preferred embodiment of the present invention calculates the above-mentioned information and assigns century values to the dates to be operated on." (Col. 5, 11. 25-30.)

## 17. Figure 3 of Shaughnessy is reproduced below:

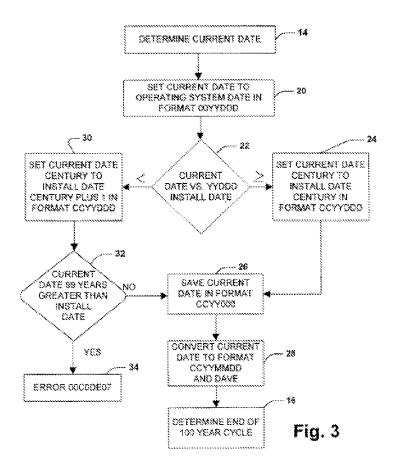


Figure 3 "is a flowchart illustrating the steps the modified computer system performs to determine the current date." (Col. 3, 11. 14-15.)

In particular, the current date is determined (box 14) in a format that uses a four digit representation of a year. (Col. 5, 1l. 31-33.) Initially, the current date is set to the operating system date (box 20) and is compared to the date the system was installed (box 22). (Col. 5, 1l. 33-40.) If the two digit year and three digit day (YYDDD) portion of the current date is greater than or equal to the corresponding portion

of the system install date, then the century of the current date is set to the century of the system install date (box 24). (Col. 5, Il. 40-45.) On the other hand, if the current date is less than the system install date, then the century of the current date is set to the century of the system install date plus one (box 30). (Col. 5, Il. 52-57.) The current date is then modified to include the century (box 26), converted to the format CCYYMMDD, and saved (box 28). (Col. 5, Il. 46-51; col. 6, Il. 1-3.) "Once the current date has been determined, the end of the 100 year cycle (cycle) is determined (box 16)." (Col. 6, Il. 4-5.)

## 18. Figure 4 of Shaughnessy is reproduced below:

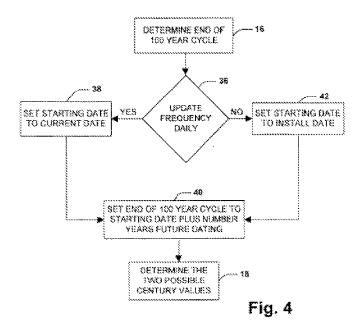


Figure 4 "is a flowchart illustrating the steps the modified computer system performs to determine the end of the 100 year cycle [box 16]." (Col. 3, Il. 16-18.)

Various parameters may be specified, including "the number of years of future dating required (default is 10), the type 2 format, CCYYMMDD, for the modified system install date (default is 19931231), and whether the end of the 100 year cycle is to be updated daily (0 indicates no update of the cycle, 1 indicates daily update of the cycle; default value is 1)." (Col. 6, Il. 7-15.) The starting date is then set to either (1) the current date as determined above in box 14 if daily update is selected (box 38) or (2) the system install date or a

default date if daily update is not selected (box 42). (Col. 6, Il. 17-20, 30-35.) "Next, the end of the 100 year cycle is determined by adding the number of years of future dating required to the starting date (box 40)." (Col. 6, Il. 20-22.) "Two other parameters which are set are the two possible century values (box 18)." (Col. 6, Il. 36-37.)

19. Next, Shaughnessy teaches that, "having set these parameters, a century value can be assigned to a two digit representation of the year based upon where the year falls in the current 100 year cycle."

(Col. 6, 1l. 46-48.) "FIGS. 6 and 7 best illustrate how this century assignment is accomplished." (Col. 6, 1l. 55-56.)

20. Figure 6 of Shaughnessy is reproduced below:

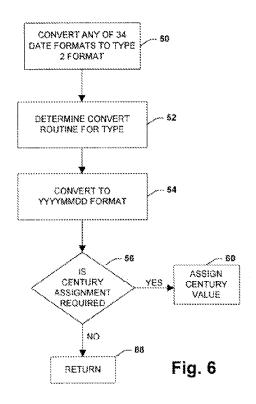


Figure 6 "is a flowchart illustrating the steps the modified computer system performs to accommodate dates regardless of the current format employed by its application program." (Col. 3, 11. 22-24.)

21. Shaughnessy teaches that "the dates to be operated on will first be converted from their original format into a type 2 format [i.e., YYYYMMDD] (box 50)." (Col. 6, ll. 58-62.) "If the original date format only provided a two digit representation of the year, then the first two digits for the year, those that correspond to the century, would both be zero at this point" (col. 7, ll. 1-5) and "[a]ccordingly,

century assignment is required (box 56)" (col. 7, 1. 5). "FIG. 7 illustrates how such century assignment is accomplished (box 60)." (Col. 7, 11. 6-7.)

# 22. Figure 7 of Shaughnessy is reproduced below:

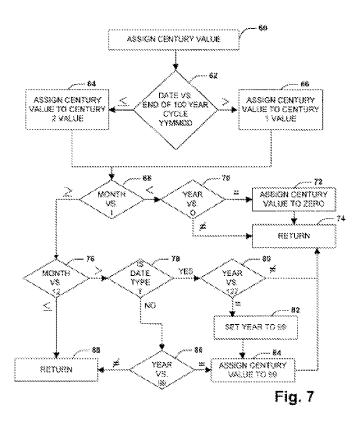


Figure 7 "is a flowchart illustrating the steps the modified computer system performs to assign a century value [box 60]." (Col. 3, 11. 25-26.)

"First, the YYMMDD portion of the type 2 date is compared to the corresponding portion of the end of 100 year cycle date (box 62)."

(Col. 7, Il. 7-9.) "If the date is less than or equal to the end of 100 year cycle date, the CENTURY2 value [i.e., one of the two possible century values] is assigned to the date (box 64)." (Col. 7, Il. 9-11.) "If the date is greater than the end of cycle date, the CENTURY1 value [i.e., the other possible century value] is assigned to the date (box 66)." (Col. 7, Il. 11-13.)

- 23. Shaughnessy teaches an example with the following parameters:
  - 1. End of 100 year cycle=20100101, i.e., Jan. 1, 2010;
  - 2. CENTURY1=19; and
  - 3. CENTURY2=20.
  - (Col. 8, Il. 4-6.) "[I]f the date requiring century assignment is Sep. 20, 1994, which in the commonly used format of YYMMDD is 940920, it is first converted into its type 2 format, which at the initial conversion is represented by 00940920 (box 50)." (Col. 8, Il. 8-12.) "To assign the century, the YYMMDD portion of this date is compared to the YYMMDD portion of the end of 100 year cycle date (box 62)." (Col. 8, Il. 12-14.) "Since 940920 is greater than 100101, the system will assign this date the CENTURY1 value (box 66) of 19." (Col. 8, Il. 14-16.) "Thus, the type 2 equivalent of Sep. 20, 1994 will now correctly be represented by 19940920." (Col. 8, Il. 16-17.)
- 24. "Accordingly, regardless of the date format currently used by an application program, date operations can be properly performed." (Col. 8, Il. 18-20.) "All that is required is a modification of the

application program to include calls to a plurality of different subroutines which will convert the date format currently employed by the application program into a type 2 format (or other century significant date format, if desired), assign a century value if necessary, perform the date operation, and return the result for further use by the application program." (Col. 8, 11. 20-26.)

25. Shaughnessy also teaches specific exemplary date operations such as a date comparison operation (col. 8, 1, 33 to col. 12, 1, 19), a date conversion operation (col. 12, 1, 22 to col. 14, 1, 45), and an operation that determines the number of days between two dates (col. 14, 1, 47 to col. 18, 1, 11).

#### Hazama

26. Hazama describes a method "[t]o guarantee the year order, even for years after 2000 AD, with the current file format, even when the year is managed by the last 2 digits of the date in digital files." (Abstract.) Claim 1 of Hazama recites a "[m]ethod of guaranteeing year order characterized in that, in a computer system that has a memory means and a processing section, when the last 2 digits for years in the 1900's and 2000's AD are stored in the aforementioned memory means, the processing section replaces the code for the 10's place in the last 2 digits of the year AD with a code that maintains the year order."

27. Hazama teaches that although "the year 2000 must be evaluated to be larger than the year 1999, for evaluation, only the last 2 digits of the date are used, so since 00 is smaller than 99, year 2000 is evaluated to be smaller than year 1999." (Paragraph [0005].) "Using 4 digits for the date has been considered as a method of resolving this, but in this case, it is necessary to change the data file record length and block length, and program modifications also arise." (Paragraph [0005].)

#### 28. Hazama teaches that:

Replacement involves numbers for years in the 2000's where the last 2 digits are smaller than the smallest number in the last 2 digits in years in the 1900's. For example, when data in file (6) for years AD begin with the year 1973, the last 2 digits are replaced using 00 (year 2000) for 72 (year 2072).

(Paragraph [0011].) "With this method, for example, if there are data from year 1999 in file (6), up to year 2098 can be handled." (Paragraph [0020].)

29. Under a paragraph entitled "Effect of the invention," Hazama teaches that "[b]y replacing code so that the relative magnitudes of years are correctly evaluated, the effect is that year order will be guaranteed without changing data file record length or block length, and further, without modifying programs." (Paragraph [0025].)

#### **Booth**

- 30. Booth describes aspects of Clipper 5, a "PC application development language" (Foreword) that "is the logical next step for the language that has slowly evolved from dBASE II" (Introduction) and "will be supporting the needs of the database programmer well into the 90s" (Foreword).
- 31. Booth teaches that "Clipper includes very powerful date manipulation capabilities." (Page 939.) Among other things, "[d]ates are stored internally in such a way that math operations can be performed on dates to derive other dates," for example "[a]dding an integer to a date will result in a future date," and "[s]ubtracting two dates will result in the number of days between the two. (Page 939.)
- 32. Booth teaches that Clipper has three settings to control that control the display of dates. (Page 939.) "One controls whether or not the century is displayed, the second controls the format of the date, and the third controls which century two-digit years are placed into." (Page 939.) In particular, "[t]he SET CENTURY command determines whether or not the year portion of a date is display with four digits (including the century) or two digits (not including the century)" (page 939), "[t]he SET DATE command is used to specify which format Clipper should display dates in," (page 939), and "[t]he

SET EPOCH command informs the system how to handle dates that use only two digits for the year" (page 941).

33. Booth teaches that it also is possible to set the date format using the SET DATE FORMAT command. (Page 940.) "One benefit of the date format syntax is that it allows a character string to be used to determine the date format, rather than a literal value." (Page 940.) The format string is twelve or fewer characters and is a combination of the following characters:

YYYY Four digit year YY Two digit year MM Month number DD Day number

(Pages 940-941.)

34. Regarding the SET EPOCH command, Booth teaches that:

[w]hen a two-digit year is entered into a date, its year digits are compared with the year digits of the epoch setting to determine the century to place the date into. If the two digits are prior to the setting of SET EPOCH, the year is assumed to be in the next century. If the digits are greater than or equal to the SET EPOCH setting, the year is assumed to be in the current century.

(Page 941.) The default setting is 1900, which "forces any date entered to be considered a date in the twentieth century." (Page 941.)

35. Booth teaches the following SET EPOCH command example:

```
set epoch to 1900
mdate :=ctod<sup>11</sup>("01/22/89")
? year(mdate) // displays 1989
set epoch to 1990
mdate := ctod("01/22/89")
? year(mdate) // displays 2089
```

(Page 942.) In other words, when the SET EPOCH setting is 1900, the two digit year "89" is greater than the setting and therefore is interpreted as the year 1989. But when the SET EPOCH setting is 1990, the two digit year "89" is less than the setting and therefore is interpreted as the year 2089.

36. Booth teaches that "Clipper provides a large number of functions to extract components of date variables and to convert dates to string formats." (Page 942.) One of these functions, the date to string or DTOS() function, "takes a date variable as a parameter and returns a string in the format: YYYYMMDD." (Page 945.) "The returned string can be used to arrange dates in chronological sequence, regardless of the date format" and, "[f]or example, you could use DTOS() to create an index which will cause the log entries in a database to appear in chronological date sequence." (Page 945.)

The "ctod" function "reads a character string and attempts to map it into the current date format. If the string is successfully mapped, a date variable will be returned." (Page 943.)

- 37. Booth teaches that "Clipper provides two ways to order the database by keys: sorting and indexing." (Page 839.) "Sorting physically rearranges the records in the database while indexing prepares a second file, called the index, which logically orders the record in the database." (Page 839.)
- 38. Regarding sorting, Booth teaches that "[y]ou can create a new sorted database file from an existing .DBF by using the Clipper SORT command." (Page 839.) The SORT command includes several parameters. Among other things, the SORT command includes a parameter <cDbf> that specifies the name of a new file to create and a parameter <cField> to indicate which fields should be sorted on, where more than one field may be specified. (Page 839.) "Clipper supports any number of sort fields." (Page 839.) The SORT command also includes a parameter <scope> to indicate which records should be sorted, which defaults to all records. (Page 840.) "Normally the fields will be sorted in ascending case-sensitive sequence" (page 839) but other options such as descending order and case insensitive order, which is "known as dictionary order" (page 840), may be specified (pages 839-840).
- 39. Booth teaches that "[o]nce the SORT operation is complete, you have a second .DBF file." (Page 841.) Booth further teaches that "[y]ou could erase the old file and rename the sorted version to take

advantage of the speed increase offered by using a sorted file" (page 841) and gives the following example:

```
use CUSTOMER new
if lastrec() > 0
    sort to New_cust on id_code/A all
    if file("New_cust.dbf")
        close databases
        rename CUSTOMER.DBF to CUSTOMER.OLD
        rename NEW_CUST.DBF to CUSTOMER.DBF
    endif
endif
use
use CUSTOMER new
(Page 841.)
```

#### **Ohms**

- 40. Ohms describes "practical solutions to problems envisioned in extending computer processing of dates beyond the twentieth century." (Page 244.) "Methods of using existing date formats are explained" (page 244) and "[t]he use of a format termed the Lilian date format . . . is introduced" (page 244).
- 41. Ohms teaches that "[t]ypically, dates are displayed and stored in the Julian and Gregorian formats" and "[c]oncepts and formats of both Julian and Gregorian date formats are discussed later in this paper."

  (Page 244.) "The Gregorian date format consists of month, day of month, and year." (Page 244.) "The two positions traditionally used

in both Julian and Gregorian date formats implicitly represent a year within a century" but "this system is inadequate for representing dates in more than one century." (Page 245.) "For example, it is ambiguous as to whether 03 represents the year 1903 or the year 2003." (Page 245.) On the other hand, Ohms explains that "[t]he Lilian date format avoids the ambiguity by using seven positions for the number of days from the beginning of the Gregorian calendar, October 15, 1582." (Page 245.)

42. Ohms teaches that "[e]nd users usually enter two digits for the year in a date and understand the ambiguity that this represents. Therefore, even at the turn of the century, to avoid adverse user reaction, programs must continue to function with only two digits for year."

(Page 248.) "The inference of the year 1997 from 97 and 2003 from 03 must continue." (Page 248.)

#### 43. Ohms teaches that:

it may be necessary to provide a conversion function that receives a definition of the implied century as a parameter. An excellent way to do this unambiguously is to specify a year as the desired starting point of a 100-year range. For example, if the starting year for the range is specified as 1925, dates with year digits of 25 through 99 would be between 1925 and 1999, and dates with year digits of 00 through 24 would lie between 2000 and 2024.

(Page 248.)

44. Ohms teaches various date conversion functions. (Page 246.) The disclosed function names "are synthesized from two 3-letter mnemonic parts" where "[t]he first part is a description of the target, and the second part is a description of the *source*." (Page 246.) The mnemonic parts include the name "GRG" for Gregorian date and "SGR" for short Gregorian date. (Page 246.) "Arguments presented to any of the conversion functions are always presented in the same order: new date (target); old date (source); range date (control), when required; and Gregorian format [specifier(s)], when required." (Page 246.) "Table 1 illustrates the format for conversion arguments" and "[t]he format descriptions in Table 1 refer to the type of data -- D for day, M for month, and Y for year, as well as the number of positions (e.g., YY for two year positions) -- that the data occupy." (Page 246.) Table 1, entitled "Examples of conversion function arguments," includes the argument "target-SGRGRG (source, YMD, MDY)" which is described as "[c]onversion of a short Gregorian (YYMMDD) date from a Gregorian (MMDDYYYY) date." (Page 247.) Thus, Ohms also suggests a conversion function from a short Gregorian (YYMMDD) date to a Gregorian (MMDDYYYY) date. (Pages 246-247.)

#### 45. Ohms teaches that

It is not necessary to change date formats in files, because it is possible to change the programs only, so that the implied century in a date is recognized. Of course, in the vast majority of cases, that is exactly what does take place. Dates familiarly and implicitly exist within the 100-year range beginning with 1900 or 1901. Thus it is necessary merely to modify the programs so that the 100-year range starts at a later date. A beginning date set eighty years prior to the current systems date may be a reasonable convention. This is well within the range now in use.

(Page 249.)

46. Regarding storage, Ohms teaches that "[t]he two main considerations pertaining to storage are (1) the cost of storing large quantities of data; and (2) the computational cost of converting records within computer files to larger date-field sizes." (Page 249.) "When millions of dates are stored, as they are in most business systems, every additional byte required to save a single date multiplies to millions of additional bytes of storage" and "[t]he programming necessary to accommodate larger date-field sizes in records further complicates date conversion." (Page 249.)

The Toreson Declaration and the Winner Declaration

### 47. Paragraph 162 of the Toreson Declaration states that:

As to written description, the Specification is reasonably clear in indicating that the applicant as of the filing date of the application leading to the Dickens patent was in possession of the invention, even if new terminology is used in the claims. The claimed sort based upon the reformatted CCYY format is a broader genus. As indicated in the specification and as would have been well known in the art at the time of the filing of the Dickens patent, data may be stored in databases in other than YYMMDD and in which the Y2K ambiguity problem still exists, e.g., YYMMMDD, where the MMM is a three letter designation of the month. For such date data formats, the present invention, as would be understood by those skilled in the art from the disclosure of the Dickens patent, with or without Exhibit A, is just as useful, along with the reformatting of the YY to CCYY. The claim, therefore, is a broader genus, which would cover the originally recited CCYYMMDD as well as, e.g., CCYYMMMDD.

(Toreson Declaration, paragraph 162.) Paragraph 162 of the Winner Declaration contains the same statement. (Winner Declaration, paragraph 162.)

# 48. Paragraph 164 of the Toreson Declaration states that:

There is quite an adequate disclosure in the original specification including the Certificate of Correction, from both a written description and an enabling perspective. The addition of the Exhibit A further supports the claim language. The "without modifying" and/or "without changing" recitations refer to

the fact that the original database date entry as contained in, e.g., a legacy database itself, is what is not modified. Clearly modification occurs according to the claims of the [sic] what is taken from or extracted from the date data field in, e.g., a legacy database, but this modification/reformatting according to the claims is done without also modifying/reformatting the originally stored date data as it is in the database itself and remains so after the converting and reformatting according to the claimed invention. This is adequately described in the written description and fully enabled.

(Toreson Declaration, paragraph 164.) Paragraph 164 of the Winner Declaration contains the same statement. (Winner Declaration, paragraph 164.)

# 49. Paragraph 166 of the Toreson Declaration states that:

This term is well known in the art. By way of example, United States Patent No. 6,317,746, entitled SOFTWARE DATE AND TIME SERVICES, issued to Franklin, Jr., et al. on November 13,2001, and United States Patent No. 6,003,028, entitled IMPLEMENTING EXTENDED NUMERIC RANGE WITHIN A TWO-DIGIT SOFTWARE REPRESENTATION, issued to Koenig on December 14, 1999 use the term in connection with windowing techniques utilizing, e.g., a ten decade window. The Examiner has himself used the term throughout the prior and present Office Actions in rejecting claims with and without the term "pivot year" in the claim language. The term simply means, as the Examiner himself has used it, the starting year for the window.

(Toreson Declaration, paragraph 166.) Paragraph 166 of the Winner Declaration contains the same statement. (Winner Declaration, paragraph 166)

## 50. Paragraph 168 of the Toreson Declaration states that:

As discussed above with respect to claims 33, 60-61, 64-65 and 70 regarding the 'without changing' or 'without modifying' recitations, the Specification as originally filed along with the Certificate of Correction, adequately discloses and enables the recitations regarding "separate reformatting" and "separate storing." The addition of Exhibit A further supports such recitations.

(Toreson Declaration, paragraph 168.) Paragraph 168 of the Winner Declaration contains the same statement. (Winner Declaration, paragraph 168.)

## 51. Paragraph 170 of the Toreson Declaration states that:

The original disclosure and claims disclose a process whereby "each" or "all" of the dates stored in a database, e.g., a legacy database, wherein the stored format includes only two year date characters, are reformatted to contain four year date characters, followed by a process of, e.g., sorting or manipulating, based on all of the reformatted dates. The Exhibit A disclosure further supports this interpretation of the claims. The term "collectively" is not used in the original disclosure. However the term serves to define over the art, e.g., Shaughnessy, where, e.g., one date from the database and one fixed date, or two dates from the database, are compared to each other, in the called subroutine, as

opposed to all of the data from the database being manipulated, e.g., date sorted "collectively."

(Toreson Declaration, paragraph 170.) Paragraph 170 of the Winner Declaration contains the same statement. (Winner Declaration, paragraph 170.)

### 52. Paragraph 172 of the Toreson Declaration states that:

As noted in the Specification of the Dickens patent:

Once the symbolic representations of the dates are reformatted according to the procedure set forth above, the date information may be sorted, numeral 38, or manipulated, numeral 40, together with the entries associated with the dates. Such manipulation may include handling of the data associated with the dates, storing the dates and associated information back in the data base, or other processes.

(Toreson Declaration, paragraph 172.) Paragraph 172 of the Winner Declaration contains the same statement. (Winner Declaration, paragraph 172.)

## 53. Paragraph 175 of the Toreson Declaration states that:

A person skilled in the art at the time of the filing of the application leading to the Dickens patent would have understood from the disclosure of the Dickens patent, with or without Exhibit A, that the storage of databases, particularly of extensive nature, may be contained in memory in variously segmented ways, e.g., on pages of extended memory, or organized by, e.g., data

> entry number. In addition it would have been understood that the process of the present invention, depending upon the particular application program being utilized and the particular kind of "manipulation" being done, may effectively run on a substantially [sic] portion of the database containing a substantial portion of all of the, e.g., date data fields, but not necessarily all of them. Applicant's claims are not limited to only those instances, where the recitation "each" or "all" as distinguishing over prior art, e.g., Shaughnessy, would require that each and every date data field is reformatted. In addition those skilled in the art would have appreciated that the database may contain several different date data fields associated with each particular data entry in the database and the sorting or other manipulation may only be concerned with one such field, and the conversion, therefore, only necessary in that instance and only as to that field. The program listing in Exhibit A is exemplary. For example, the "tools" database may have other date data fields besides "last\_inv.dat", e.g., purchase.dat or last\_maintenance.dat. The claims as originally filed would cover that situation and the added claims rejected above by the Examiner simply further clarify this fact.

(Toreson Declaration, paragraph 175.) Paragraph 175 of the Winner Declaration contains the same statement. (Winner Declaration, paragraph 175.)

# 54. Paragraph 177 of the Toreson Declaration states that:

The disclosure of the Dickens patent, even without Exhibit A, and also with Exhibit A, fully describes the claim recitation "by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a

pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database ...." Windowing is a well known and recognized term in the art, and as noted above the pivot year, meaning the earliest date in the window, is also a well known and recognized term of art. Even if the disclosure of the Dickens patent, with or without Exhibit A, does not specifically use the term "windowing" or the term "pivot year," one skilled in the art at the time of the filing of the Dickens patent would have understood the disclosure to contemplate and fully describe and enable the claim limitation.

(Toreson Declaration, paragraph 177.) Paragraph 177 of the Winner Declaration contains the same statement. (Winner Declaration, paragraph 177.)

# 55. Paragraph 179 of the Toreson Declaration states that:

Applicant asserts that the step of opening the database is at least inherent in the disclosure of the Dickens patent. One skilled in the art would have understood that to get at the date data field stored in the database in the Y2K ambiguous format in order to reformat it to not be Y2K ambiguous, the database would initially have to be opened up for such access. Exhibit A, in addition, specifically includes a program step opening the "tools" database.

(Toreson Declaration, paragraph 179.) Paragraph 179 of the Winner Declaration contains the same statement. (Winner Declaration, paragraph 179.)

### 56. Paragraph 181 of the Toreson Declaration states that:

Applicant submits that there is a full description of and enablement of the claims recitation of a process for working on a "database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries," and for the subsequent recitation of "converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity .... " The specification says that the problem being addressed is:

However, with the turn of the century at Jan. 1, 2000, the representation and utilization of dates becomes more complex. Using the numerical form above, Dec. 15, 2000 is represented as 12/15/00. If a numerical sort is performed on 12/15/93 and 12/15/00, the later date 12/15/00 sorts as the first-occurring date, an incorrect result.

Sets of dates spanning the turn of the century and associated with past, current, and future activities are now stored in many databases. When stored in the conventional formats discussed above, those dates will not readily be used and numerically sorted in chronological order.

In other words, because of the utilization of only two date data characters, the century of the date is ambiguous, and the process of the present invention will remove that ambiguity. That is, the date data format that is ambiguous in two characters is converted to one in four characters that is not ambiguous in a disclosed embodiment of the invention.

(Toreson Declaration, paragraph 181.) Paragraph 181 of the Winner Declaration contains the same statement. (Winner Declaration, paragraph 181.)

## 57. Paragraph 183 of the Toreson Declaration states that:

The specification and claims are perfectly clear on the meaning of the value of Y<sub>A</sub>Y<sub>B</sub>. It is the "first year of the 10-decade window." (Col 3, line 13). The full recitation of the claim to which the Examiner refers recites "selecting a 10-decade window with a Y<sub>A</sub>Y<sub>B</sub>. value for the first decade of the window .... " This is precisely the same as saying that the "value" of YAYB is the two digit year value of the first year in the 10-decade window. Contrary to the Examiner's suggestion, the claim does not call for setting the "value for a decade," even if in the context of the Specification and claim language there would be any doubt that "the value of a decade" is ten years. The claim clearly calls for a " Y<sub>A</sub>Y<sub>B</sub>, value" which is "for the first decade of the [10] decade] window .... " It is also the same value as for the first year in the 10-decade window.

(Toreson Declaration, paragraph 183.) Paragraph 183 of the Winner Declaration contains the same statement. (Winner Declaration, paragraph 183.)

#### Exhibit A

58. Exhibit A, presented in "Evidence Appendix B" of the Appeal Brief, is reproduced below:

```
-- Century Conversion
                                         Brane Sickens Apr 54, 1996
            "; " Model No "; " LAST_INV "; "LAST_S
                     print #2: "Trolks
                      print #2; "mesence
                      print #2: "Extesct Date:"
             extract structure tools

ys + ipads (xlements (tools (last inv), 3. "/"), 2. "0")

mos - ipads (elements (tools (last inv), 2. "f"), 2. "0"

dd: - ipads (elements (tools (last inv), 2. "f"), 2. "g")

cas yys * "/" + was * "/" + dd?

cis - changes (mos. "/", ")

if cis (is) ( '58" then

cs = '20" + dd?
                      else
| $50 '19' + 61$
                       include of < '19966181'
                    Sand Land Commercial
                                          and if
if valid (cis. "minimograb 6") " 6 them
point (tab(50)) " Date formet is short"
print (2: ;tab(50); " Date formet is short"
and if
if tools(isst inv) " " them
print (tab(537; " Nate formet is blank "
print (2: ;tab(53); " Date formet is blank "
end if
                     end if
                end extract
                       print
print "Sorted Data:"
         print "Sorted Deca"

print
for each tools

cle "thouge; (tools (last law), "", ")

print tools(toolso); tab(23); tab(4); cS

tab(25); tools(law, law); tab(4); cS

scient #2; tools(law, law); tab(4); cS

(s'valid); cls. "digits"; " 3 then

grint ; tab(53); " Date formet is not digits"

scient #1; (tab(53); " Date formet is not digits"

scient #1; (tab(53); " Date formet is not digits"

scient #1; (tab(53); " Date formet is not digits"

scient #2; ; (tab(53); " Date formet is short"

print #2; ; (tab(53); " Date formet is short"

scient #2; ; (tab(53); " Date formet is short")

scient #2; ; (tab(53); " Date formet is short")
                                                                                  Exhibit A
```

Exhibit A shows a computer program listing.

#### Other

- 59. The ordinary meaning of "collectively" includes "in a collective sense or manner: . . . in the aggregate: by collective acts." *Webster's Third New International Dictionary of the English Language Unabridged* 445 (1971).
- 60. The ordinary meaning of "collective" includes "formed by collecting: gathered into a mass, sum, or body: AGGREGATED." Webster's Third New International Dictionary of the English Language Unabridged 444 (1971); see also Webster's New World Dictionary Third College Edition 274 (1994) ("formed by collecting; gathered into a whole").

#### PRINCIPLES OF LAW

Under the written description requirement of 35 U.S.C. § 112, first paragraph, the disclosure of the application relied upon must reasonably convey to one of ordinary skill in the art that, as of the filing date of the application, the inventor had possession of the later claimed subject matter. *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991). The specification need not describe the claimed subject matter in exactly the same terms as used in the claims, but it must contain an equivalent description of the claimed subject matter. *Lockwood v. American Airlines*, *Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997).

The first paragraph of 35 U.S.C. § 112 also requires that the specification of a patent enable any person skilled in the art to which it pertains to make and use the claimed invention. Although the statute does not say so, enablement requires that the specification teach those in the art to make and use the invention without "undue experimentation." *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988). Whether undue experimentation is required is a conclusion reached by weighing several underlying factual inquiries. *Id.* at 736.

A specification need not disclose what is well known in the art. Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 1463 (Fed. Cir. 1984). However, this is merely a rule of supplementation, not a substitute for a basic enabling disclosure. Genentech, Inc. v. Novo Nordisk, A/S, 108 F.3d 1361, 1366 (Fed. Cir. 1997). It means that the omission of minor details does not cause a specification to fail to meet the enablement requirement. Id. It is the specification, not the knowledge of one skilled in the art, that must supply the novel aspects of an invention in order to constitute adequate enablement. Id.

The purpose of the second paragraph of 35 U.S.C. § 112 "is to provide those who would endeavor, in future enterprise, to approach the area circumscribed by the claims of a patent, with the adequate notice demanded by due process of law, so that they may more readily and accurately determine the boundaries of protection involved and evaluate the possibility of infringement and dominance." *In re Hammack*, 427 F.2d 1378, 1382 (CCPA 1970). The test for definiteness under the second paragraph of 35

U.S.C. § 112 is "whether those skilled in the art would understand what is claimed when the claim is read in light of the specification." *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576 (Fed. Cir. 1986). Also, during prosecution "if a claim is amenable to two or more plausible claim constructions, the USPTO is justified in requiring the applicant to more precisely define the metes and bounds of the claimed invention by holding the claim unpatentable under 35 U.S.C. § 112, second paragraph, as indefinite." *Ex Parte Miyazaki*, No. 2007-3300, http://www.uspto.gov/web/offices/dcom/bpai/prec/fd073300.pdf at 11-12 (BPAI Nov. 19, 2008) (precedential).

"Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 127 S. Ct. 1727, 1734 (2007) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966)). In *KSR*, the Supreme Court reaffirmed that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* at 1739. The Court explained:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary

skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

### *Id.* at 1740. The Court also explained that:

[o]ften, it will be necessary . . . to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.

### Id. at 1740-41.

"[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). "To facilitate review, this analysis should be made explicit." *KSR*, 127 S. Ct. at 1741. However, "the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *Id*.

The Supreme Court noted that "[i]n many fields it may be that there is little discussion of obvious techniques or combinations, and it often may be the case that market demand, rather than scientific literature, will drive design trends." *KSR*, 127 S. Ct. at 1741. "Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in

the manner claimed." *Id.* at 1742. The Court also noted that "[c]ommon sense teaches . . . that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle." *Id.* "A person of ordinary skill is also a person of ordinary creativity, not an automaton." *Id.* 

Furthermore, the Supreme Court explained that "[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp." *KSR*, 127 S. Ct. at 1742. "If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense," *id.* and, in such an instance "the fact that a combination was obvious to try might show that it was obvious under § 103" *id.* 

During examination of a patent application, a claim is given its broadest reasonable construction consistent with the specification. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). "[T]he words of a claim 'are generally given their ordinary and customary meaning.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal citations omitted). The "ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1313.

#### **ANALYSIS**

#### Overview

Appellant contends that the Examiner erred in rejecting claims 1-76. (App. Br. 10-30; Reply Br. 1-11; Response to Office Action received February 19, 2002 ("Feb. Response") at 2-38; Response to Office Action received December 23, 2002 ("Dec. Response") at 2-88.)<sup>12</sup> Reviewing the record before us and the findings of facts cited above, we do not agree that the Examiner erred in rejecting:

claims 16-67 and 70-72 under 35 U.S.C. § 112, first paragraph; claims 16-67 and 70-72 under 35 U.S.C. § 112, second paragraph; claims 1-15, 68, 69, and 73-76 as being obvious under 35 U.S.C. § 103(a) in view of various combinations of Shaughnessy, Hazama, and Booth; and

claims 1-15, 68, 69, and 73-76 as being obvious under 35 U.S.C. § 103(a) in view of various combinations of Ohms, Hazama, and Booth.

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<sup>&</sup>lt;sup>12</sup> In order for arguments to be considered by the Board, our rules require that they be included in the Briefs. 37 C.F.R. § 41.37(c)(1)(vii) ("Any arguments or authorities not included in the brief or a reply brief... will be refused consideration by the Board, unless good cause is shown."). Here, the Briefs merely attempt to incorporate by reference (App. Br. 9) arguments previously presented in the Response to Office Action received February 19, 2002 ("Feb. Response") and the Response to Office Action received December 23, 2002 ("Dec. Response"). This does not comply with our rules. In the interest of administrative and judicial economy, we have overlooked this failure. However, in future appeals an administrative remand would be appropriate.

However, we agree with Appellant that the Examiner erred in rejecting:

claims 69, 75, and 76 under 35 U.S.C. § 112, first paragraph; and claims 1-15, 68, 69, and 73-76 under 35 U.S.C. § 112, second paragraph.

In addition, the rejections of claims 16-67 and 70-72 as being obvious under 35 U.S.C. § 103(a) in view of various combinations of Shaughnessy, Hazama, and Booth and also in view of various combinations of Ohms, Hazama, and Booth are vacated based on the indefiniteness of the claimed subject matter. It should be understood, however, that our decision to vacate these rejections does not reflect on their underlying merits.

# § 112, First and Second Paragraph Rejections

Appellant argues that the Examiner erred in rejecting claims 16-67, 69-72, 75, and 76 under 35 U.S.C. § 112, first paragraph, and in rejecting claims 1-76 under 35 U.S.C. § 112, second paragraph. (App. Br. 10-11; Reply Br. 1-5; Dec. Response 54-65.) The issues presented are:

- 1. Has Appellant shown that the Examiner erred in rejecting claims 16-67, 69-72, 75, and 76 under 35 U.S.C. § 112, first paragraph?
- 2. Has Appellant shown that the Examiner erred in rejecting claims 1-76 under 35 U.S.C. § 112, second paragraph?

For reasons that follow, we find that Appellant has not shown that the Examiner erred in rejecting:

claims 16-67 and 70-72 under 35 U.S.C. § 112, first paragraph; and claims 16-67 and 70-72 under 35 U.S.C. § 112, second paragraph;

However, we find that Appellant has shown that the Examiner erred in rejecting:

claims 69, 75, and 76 under 35 U.S.C. § 112, first paragraph; and claims 1-15, 68, 69, and 73-76 under 35 U.S.C. § 112, second paragraph.

Because many of the claims have been rejected based upon multiple claim limitations, our analysis proceeds in a claim limitation by claim limitation fashion. Initially, however, we turn to an objection against the introduction of new matter into the Specification regarding Appellant's proffered "Exhibit A."

# "Exhibit A" Issue

Appellant has amended<sup>13</sup> the Specification by adding a computer program listing denoted as "Exhibit A".<sup>14</sup> Under 35 U.S.C. § 132, the Examiner objected to this amendment as new matter. (OA 1.)

Amendment" received June 29, 2004.

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<sup>&</sup>lt;sup>13</sup> For example, see pages 1-2 of the Response to Office Action of December 23, 2002 and pages 3-5 of the "Substitute Housekeeping

Appellant argues that Exhibit A was filed with the '574 application and therefore is not new matter. (App. Br. 10-11; 29-30.) Appellant contends that "*Exhibit A should have been published with the Dickens patent as issued*." (Reply Br. 2.) Appellant further contends that the Examiner had previously indicated that a certificate of correction to add Exhibit A was not appropriate during the prosecution of a reissue application, and therefore one was not sought. (Reply Br. 2.)

The Examiner replies that Exhibit A is not supported by the original disclosure and is not part of the printed '063 patent.<sup>16</sup> The Examiner also points out that "the Applicant did not specifically indicate, for the record, the mailing date and the specific correspondence where the 'Examiner has indicated that a Certificate of Correction during the Reissue is not appropriate to correct the fact [that] this Exhibit was not contained in the Patent as issued." (Ans. 10.)

We agree with the Examiner. Although the Specification makes reference to an Exhibit A, there is no Exhibit A contained in the printed '063 patent. (FF 8.) Neither is Exhibit A found in the certificate of correction for

<sup>&</sup>lt;sup>14</sup> In Evidence Appendix B, section B(3), of the instant Appeal Brief Appellant has submitted a copy of the '574 application transmittal letter along with a purported copy of Exhibit A (*see* FF 58).

Appellant refers to footnote 9 of the Appeal Brief for the location of this assertion by the Examiner. (Reply Br. 2, n.1.) Footnote 9, in turn, refers to paragraph 4 on page 2 of the Office Action of July 22, 2002. (App. Br., n.9.) However, as discussed *infra*, this paragraph does not support Appellant's contention.

We note that Exhibit A also is not part of the '063 patent certificate of correction that issued on December 29, 1998.

the '063 patent that issued December 29, 1998. (FF 8.) Therefore, the Examiner correctly objected to Examiner A as new matter.

Appellant misreads paragraph 4 on page 2 of the Office Action of July 22, 2002. That paragraph of the Office Action stated: "Changes made in the certificate of correction have not been incorporated into the specification of the reissue application. Applicant is required to submit a substitute specification which complies with reissue practice." (Office Action of July 22, 2002 at page 2.) Contrary to Appellant's assertion, the Examiner did not state that a certificate of correction to add Exhibit A would not be appropriate during prosecution of a reissue application. Instead, per MPEP § 1411.01,<sup>17</sup> the Examiner merely required a substitute specification to incorporate the changes made by the certificate of correction that issued December 29, 1998. In other words, the "certificate of correction" referenced in paragraph 4 is the certificate of correction for the '063 patent that issued December 29, 1998, which corrected a minor typographical error in the Abstract and a minor typographical error in the References Cited section of the '063 patent. The "certificate of correction" referenced by the Examiner in paragraph 4 is not some potential future certificate of correction to add Exhibit A. In paragraph 4, the Examiner did not discourage the filing of an additional certificate of correction to add Exhibit A to the Specification.

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<sup>&</sup>lt;sup>17</sup> MPEP § 1411.01 states that the applicant should include changes made by a certificate of correction in the reissue application without underlining or bracketing. MPEP § 1411.01 also states that the Examiner may request a clean copy of the specification with the certificate of correction changes.

We note that in the next amendment following the Office Action of July 22, 2002, Appellant stated:

In the Specification:

Please substitute the Abstract contained in Appendix I to this Response, which includes the changes made to the original body of the Specification as filed by the Certificate of Correction, with the exception of the change in the section "References Cited" which is not part of the Specification.

(Dec. OA 1.) Thus, Appellant complied with the Examiner's requirement to provide a clean copy of the Specification with the changes made in the certificate of correction of December 29, 1998. In the same amendment, Appellant also stated:

Please add the accompanying "Exhibit A" which is contained in Appendix 3 to this Response. "Exhibit A" is a retyped version of the original "Exhibit A," a copy of which accompanies this Response as Appendix 4, which was filed with the original application leading to the Dickens patent under reexamination and subject [sic] of the Reissue application in this Merged Proceeding"

(Dec. OA 1-2.) Appellant did not refer to any certificate of correction when Exhibit A was added to the Specification.

If the computer program proffered by Appellant as Exhibit A was filed as part of the original '574 application, as Appellant asserts, then Appellant must obtain a certificate of correction under 35 U.S.C. § 254 in order for it to become part of the Specification. Appellant admits that no

such action has been taken. (Reply Br. 2.) The Board does not have the authority to make the correction sought by Appellant.

Accordingly, we detect no error in the Examiner's determination that the amendment to add Exhibit A into the Specification introduces new matter in violation of 35 U.S.C. § 132 (and 35 U.S.C. § 251 with respect to the reissue application). <sup>18</sup>

## Claim limitation: sorting dates in the form $C_1C_2Y_1Y_2$

The Examiner rejected claims 32 and 69, which recite the limitation of sorting dates in the form  $C_1C_2Y_1Y_2$ , because "the specification only describes sorting with the format C 1 C2Y 1 Y2M 1 M2D 1 D2" and "a CCYY sort is not merely a broader genus for the species of CCYYMMDD." (OA 6; *see also* Ans. 5-6.) We do not agree.

Instead, we agree with Appellant that the Examiner failed to offer any persuasive reasons why the original disclosure would not have reasonably conveyed to one skilled in the relevant art that the inventor had possession of the claimed subject matter. (Dec. Response 57-58; App. Br. 11; Reply Br. 3; see also FF 3, 8, 47.) In particular, the Specification discloses sorting dates in the form  $Y_1Y_2M_1M_2D_1D_2$  (FF 3) and in the form  $C_1C_2Y_1Y_2M_1M_2D_1D_2$  (FF 8). The Examiner has not offered persuasive reasons or evidence to show that one of ordinary skill in the art would not have understood that the

Appellant's arguments regarding Exhibit A in our analysis of the rejections under 35 U.S.C. § 112.

Nevertheless, because the Specification has been amended to add Exhibit A, albeit improperly, we consider *infra* both Exhibit A and

inventor had possession of sorting dates in other similar formats with fewer data fields, such as, for example, dates in the claimed form of  $C_1C_2Y_1Y_2$ . In other words, given the disclosure in the Specification that the inventor had possession of sorting dates in similar formats with more data fields, we do not see why the inventor would not also have had possession of sorting dates in similar formats with fewer data fields. Specifically, given the disclosure in the Specification of sorting dates with century, year, month, and day data fields, we do not see why the inventor would not also have had possession of sorting dates with only century and year data fields. Thus, one of ordinary skill in the art would have understood that Appellant had possession of the claimed sorting of dates in the form  $C_1C_2Y_1Y_2$  as of the filing date of the '063 patent. In addition, we agree with Appellant (id.) that the disclosure of sorting in a C1C2Y1Y2M1M2D1D2 format would enable one of ordinary skill in the art to sort just the C1C2Y1Y2 portion without undue experimentation. Furthermore, the Examiner has not adequately explained why those skilled in the art would not understand what is claimed when the claims are read in light of the Specification or why the claimed subject matter is amenable to multiple plausible constructions.

Therefore, we conclude that Appellant has shown that the Examiner erred in this rejection.

# Claim limitation: without changing or without modifying

The Examiner rejected claims 33, 60-61, 64-65, and 70, which recite the limitation of "without changing" or "without modifying" the symbolic

date representations in the database during the reformatting, because "the specification is devoid of any disclosure of how such reformatting is performed 'without changing' or 'without modifying' the symbolic date representation" and "the suggestion of reformatting without changing representation is on its face a contradiction, for the reformat is to change representation." (OA 6-7; *see also* Ans. 5-6.) We do not agree.

Instead, we agree with Appellant that there is adequate written description support and an enabling disclosure in the original Specification. (Dec. Response 58-59; App. Br. 11; Reply Br. 3-4; *see also* FF 1, 48.) As Appellant explains, modification/reformatting is performed on data extracted from the database, but the modification/reformatting is done without modifying/reformatting the original data stored in the database. (*Id.*) Appellant further notes that this issue "was dealt with in the prosecution of the original ['574] application." (Dec. Response 59.) One of ordinary skill in the art would have understood that Appellant had possession of the claimed subject matter as of the filing date of the '063 patent. In addition, we agree with Appellant (*id.*) that the disclosure of the original Specification would enable one of ordinary skill in the art to perform the claimed modifying/reformatting without undue experimentation. Furthermore, the Examiner has not adequately explained why those skilled in the art would not understand what is claimed when the claims are read in light of the

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<sup>&</sup>lt;sup>19</sup> For example, the statement of reasons for allowance on page 2 of the Notice of Allowability mailed April 3, 1998 stated that the claims "determine a pair of century digits to be used for computation, but without enlarging the number of date digits of the database."

Specification or why the claimed subject matter is amenable to multiple plausible constructions.

Therefore, we conclude that Appellant has shown that the Examiner erred in this rejection.

## Claim limitation: pivot date or pivot year

The Examiner rejected claims 16-30, 32, 34-67, 69-71, 75, and 76, which recite the limitation of a pivot date or pivot year, because "such terms are nowhere defined or even mentioned in the original specification." (OA 7; *see also* Ans. 6.) We do not agree.

Instead, we agree with Appellant that there is adequate written description support and an enabling disclosure in the original Specification. (Dec. Response 59-60; App. Br. 11; Reply Br. 4; see also FF 3-7, 49.) Claims 16-30, 32, 66, 67, 69, 75, and 76 recite that the "pivot date" or "pivot year" is a  $Y_AY_B$  value with " $Y_AY_B$  being no later than the earliest  $Y_1Y_2$  year designator in the database." Claims 34-65 recite that the "pivot date" or "pivot year" is "represented by one of the symbolic representations of the dates as stored in the at least one date field of the database." Claims 70 and 71 recite that the "pivot date" or "pivot year" is "less than or equal to the earliest date represented by the [in claim 70, or "a," in claim 71] symbolic representation of dates stored in the at least one date field."

Although the Specification does not use the term "pivot date" or "pivot year," it does contain an equivalent description of the claimed subject matter. (FF 4-6.) The Specification teaches that  $Y_A Y_B$  is the first year of the

10-decade window (FF 5) and original claim 1 of the '574 application recited that  $Y_AY_B$  is "no later than the earliest  $Y_1Y_2$  year designator in the database." One of ordinary skill in the art would have understood that Appellant had possession of the claimed subject matter as of the filing date of the '063 patent. In addition, we agree with Appellant that the disclosure of the '063 patent would enable one of ordinary skill in the art to use the claimed invention without undue experimentation. Furthermore, the Examiner has not adequately explained why those skilled in the art would not understand what is claimed when the claims are read in light of the Specification or why the claimed subject matter is amenable to multiple plausible constructions.

Therefore, we conclude that Appellant has shown that the Examiner erred in this rejection.

## Claim limitation: reformatting or storing separately

The Examiner rejected claims 20-21, 62-65, and 71, which recite the limitation of reformatting or storing separately from the symbolic representations in the database, because "the original specification does not disclose such 'separate' reformatting or storing." (OA 7; *see also* Ans. 6.) We do not agree.

Instead, we agree with Appellant that there is adequate written description support and an enabling disclosure in the original Specification. (Dec. Response 60; App. Br. 11; Reply Br. 4; *see also* FF 1, 50.) Appellant further notes that this issue "was raised and dealt with by the Examiner in

the original prosecution of the Dickens patent [i.e., the '574 application]."<sup>20</sup> (Dec. Response 60.) One of ordinary skill in the art would have understood that Appellant had possession of the claimed subject matter as of the filing date of the '063 patent. In addition, we agree with Appellant that the disclosure of the '063 patent would enable one of ordinary skill in the art to make and use the claimed invention without undue experimentation. Furthermore, the Examiner has not adequately explained why those skilled in the art would not understand what is claimed when the claims are read in light of the Specification or why the claimed subject matter is amenable to multiple plausible constructions.

Therefore, we conclude that Appellant has shown that the Examiner erred in this rejection.

## Claim limitation: "collectively" further processing

The Examiner rejected claims 16-25, 26-30,<sup>21</sup> 31-33, 66, 67, and 72, which recite the limitation of "collectively further processing." (OA 7-8; *see* 

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For example, the statement of reasons for allowance on page 2 of the Notice of Allowability mailed April 3, 1998 stated that the claims "determine a pair of century digits to be used for computation, but without enlarging the number of date digits of the database."

The Examiner's explanation of the rejection in the office action (OA 7) appears to have mistakenly omitted claims 26-30, which recite "collectively further processing." However, claims 26-30 were included in the Examiner's rejections under 35 U.S.C. § 112, first and second paragraphs, in the office action (OA 5), the final office action (FA 3), and the Answer (Ans. 3, 6). Therefore, we consider the omission of claims 26-30 at page 7 of the office action to be a typographical error.

also Ans. 6.) The Examiner also rejected claims 36-43 and 48-55,<sup>22</sup> which recite the limitations of either "collectively sorting" or "collectively manipulating." (OA 7-8; *see also* Ans. 6.) In addition, the Examiner rejected claims 34-59 and 61,<sup>23</sup> 63 and 65, which recite "running a program collectively." We agree with the Examiner.

Appellant argues that the Examiner erred. (Dec. Response 60-61; App. Br. 11; Reply Br. 4; *see also* FF 51.) In particular, Appellant argues that "[t]he original disclosure and claims disclose a process whereby 'each' or 'all' of the dates stored in the database, e.g., a legacy database, wherein the stored format includes only two year date characters, are reformatted to contain four year date characters, followed by a process of, e.g., sorting or manipulating, based on all of the reformatted dates." (Dec. Response 61; FF 51) Appellant asserts that "Exhibit A[] further supports these claims." (App. Br. 11; *see also* Reply Br. 4; Dec. Response 61; FF 51.) Appellant admits that "[t]he term 'collectively' is not used in the original disclosure." (*Id.*) Nevertheless, Appellant argues that "the term serves to define over the art, e.g., Shaughnessy, where, e.g., one date from the database and one fixed

The Examiner's explanation of the rejection in the office action (OA 7) appears to have mistakenly omitted claims 48-55, which recite "collectively sorting" or "collectively manipulating." However, claims 48-55 were included in the Examiner's rejections under 35 U.S.C. § 112, first and second paragraphs, in the office action (OA 5), the final office action (FA 3), and the Answer (Ans. 3, 6). Therefore, we consider the omission of claims 48-55 at page 7 of the office action to be a typographical error.

The office action (OA 7) also included claim 60, but claim 60 does not recite "running a program collectively." Therefore, we consider the inclusion of claim 60 here to be a typographical error.

date, or two dates from the database, are compared to each other, in the called subroutine, as opposed to all of the data from the database being manipulated, e.g., date sorted 'collectively.'" (*Id.*)

Appellant's arguments are not persuasive. The term "collectively" is quite broad, contrary to the narrow interpretation urged by Appellant. The Specification does not attribute any special meaning to this term because, as Appellant admits (Dec. Response 61; *see also* FF 51), the term "collectively" is not used in the original disclosure. The relevant plain meaning of "collectively" is "in a collective sense or manner: . . . in the aggregate: by collective acts." (FF 59.) The relevant plain meaning of "collective" is "formed by collecting: gathered into a mass, sum, or body:

AGGREGATED" (FF 60) or "formed by collecting; gathered into a whole" (FF 60). Therefore, under the broadest reasonable interpretation consistent with the Specification, "collectively" performing the acts of "further processing," "sorting," "manipulating," or "running a program" can be interpreted as performing these acts in a collective manner.

Appellant has not presented any convincing evidence that demonstrates that, as of the filing date of the '574 application, the inventor had possession of the claimed subject matter, i.e., "collectively" performing the acts of "further processing," "sorting," "manipulating," or "running a program." Neither the Toreson Declaration nor the Winner Declaration convincingly explain or otherwise demonstrate how one of ordinary skill in the art would have understood that the inventor had possession of the properly interpreted subject matter as of the filing date of the '574

application. (*See* FF 51.) At best, these Declarations merely offer unadorned conclusions. In addition, Appellant has not convincingly explained or otherwise demonstrated how Exhibit A provides support to show that one of ordinary skill in the art would have understood that the inventor had possession of the properly interpreted subject matter as of the filing date of the '574 application. (*See* FF 51.) Instead, Appellant merely presents an unsupported conclusion. While the Specification describes sorting or otherwise manipulating date information after reformatting (FF 8), Appellant has not pointed to a description in the Specification of "*collectively*" further processing, sorting, manipulating, or running a program as claimed. Thus, Appellant has not shown that the Examiner erred in finding that one of ordinary skill in the art would not have recognized that Appellant had possession of the claimed subject matter as of the filing date of the '063 patent.

Appellant also has not presented any convincing evidence that demonstrates that the Specification enables one of ordinary skill in the art to make and use the claimed invention. As discussed, Appellant's evidence and arguments are conclusory at best.

In addition, the meaning of "collectively" further processing, sorting, manipulating, and running a program is unclear. In other words, one of ordinary skill in the art would not understand what is claimed when these claims are read in light of the Specification. Therefore, these claims are indefinite because they do not give adequate notice of the boundaries of protection involved.

Moreover, these claims are indefinite because the above-noted claim terms are subject to multiple plausible interpretations, and the Specification does not reasonably apprise one skilled in the relevant art which interpretation controls. Appellant proffers one possible interpretation (Dec. Response 61; *see also* FF 51). Specifically, Appellant interprets "collectively" manipulating (e.g., date sorting) as manipulating all of the data from the database. (*Id.*) However, another plausible interpretation of the claim limitations of "collectively" performing the acts of "further processing," "sorting," "manipulating," or "running a program" would require the acts themselves to be performed in a collective manner or in the aggregate.

For example, under one plausible interpretation, "collectively further processing" the reformatted symbolic representations of each of the symbolic representations of each of the dates, as recited by claim 16, could be interpreted as requiring the reformatted symbolic representations to be processed in a collective manner or in the aggregate. In other words, the reformatted symbolic representations themselves may be required to be formed by collecting or being gathered into a whole. Alternatively, under another plausible interpretation, "collectively further processing" could be interpreted to require that the act of "further processing" be performed in a collective manner or in the aggregate. Similarly, the limitations of collectively sorting, manipulating, and running a program are subject to multiple plausible interpretations.

Accordingly, we conclude that Appellant has not shown that the Examiner erred in rejecting claims 16-25, 26-30, 31-33, 66-67, and 72, claims 36-43 and 48-55, and claims 32-59, 61, 63, and 65 under 35 U.S.C. § 112, first and second paragraphs.

We do not believe that our conclusion with respect to claims 26-30, which recite "collectively further processing," and claims 48-55, which recite "collectively sorting" or "collectively manipulating," need be treated as a new ground of rejection. As discussed, the Examiner has rejected claims 26-30 and 48-55 under 35 U.S.C. § 112, first and second paragraphs (OA 5; FA 3; Ans. 3,6). For the reasons previously discussed, the Examiner has shown why the limitations "collectively further processing," "collectively sorting," and "collectively manipulating" lack written description support, are not enabled, and are indefinite.

Moreover, Appellant is not prejudiced by our conclusion that no error has been shown in the rejection of claims 26-30 and 48-55 under 35 U.S.C. § 112, first and second paragraphs. Appellant has presented arguments, which we have fully considered, as to why claims which recite the limitations "collectively further processing," "collectively sorting," and "collectively manipulating" allegedly do not lack written description support, are enabled, and are not indefinite.

However, if Appellant believes that our conclusion that no error has been shown in the rejection of claims 26-30 and 48-55 under 35 U.S.C. § 112, first and second paragraphs, constitutes a new ground of rejection under 37 C.F.R. § 41.50(b), Appellant may treat it as such. Thus, Appellant

may choose to treat our affirmance of the rejection of claims 26-30 and 48-55 under 35 U.S.C. § 112, first and second paragraphs, as a new ground of rejection. 37 C.F.R. § 41.50(b) provides that, "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 C.F.R. § 41.50(b) also provides that the Appellants, *WITHIN TWO MONTHS FROM THE DATE OF THE DECISION*, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (37 C.F.R. § 1.197 (b)) as to the rejected claims:

- (1) Reopen prosecution. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner ...
- (2) Request rehearing. Request that the proceeding be reheard under 37 C.F.R. § 41.52 by the Board upon the same record ...

# Claim limitation: running a program after sorting

The Examiner rejected claims 36, 37, 40, 41, 48, 49, 51-5, and 69, which recite the limitation of running a program after performing a sorting operation, because "the original specification does not provide a written description of such running of a program subsequent to the step of sorting." (OA 8; *see also* Ans. 6.) Similarly, the Examiner rejected claims 38, 39, and 42, and 43, which recite data manipulation before running the program. (OA 8; *see also* Ans. 6.) We do not agree.

Instead, we agree with Appellant that there is adequate written description support and an enabling disclosure in the original Specification.

(Dec. Response 61-62; App. Br. 11; Reply Br. 4; *see also* FF 7, 52.) One of ordinary skill in the art would have understood that Appellant had possession of the claimed subject matter as of the filing date of the '063 patent. In addition, we agree with Appellant that the disclosure of the '063 patent would enable one of ordinary skill in the art to make and use the claimed invention without undue experimentation. Furthermore, the Examiner has not adequately explained why those skilled in the art would not understand what is claimed when the claims are read in light of the Specification or why the claimed subject matter is amenable to multiple plausible constructions.

Therefore, we conclude that Appellant has shown that the Examiner erred in this rejection.

# Claim limitation: converting at least a substantial portion

The Examiner rejected claims 46-59, which recite the limitation of repeating the step of converting at least a substantial portion of the specified data, because "[t]he original specification does not disclose the conversion of such substantial portion." (OA 8; *see also* Ans. 6.) We do not agree.

Instead, we agree with Appellant that there is adequate written description support and an enabling disclosure in the original Specification. (Dec. Response 62; App. Br. 11; Reply Br. 4; *see also* FF 53.) One of ordinary skill in the art would have understood that Appellant had possession of the claimed subject matter as of the filing date of the '063 patent. (*Id.*) In addition, we agree with Appellant that the disclosure of the

'063 patent would enable one of ordinary skill in the art to make and use the claimed invention without undue experimentation. Furthermore, the Examiner has not adequately explained why those skilled in the art would not understand what is claimed when the claims are read in light of the Specification or why the claimed subject matter is amenable to multiple plausible constructions.

Therefore, we conclude that Appellant has shown that the Examiner erred in this rejection.

## Claim limitation: windowing

The Examiner rejected claims 34-65, 70, and 71, which recite the limitation of converting symbolic representations by windowing the symbolic representations against a pivot year, because "[t]he verb 'windowing' appears nowhere in the specification, and its meaning is unclear." (OA 8; *see also* Ans. 6-7.) We agree with the Examiner.

Appellant argues that the Examiner erred. (Dec. Response 63; App. Br. 11; Reply Br. 4; *see also* FF 54.) In particular, Appellant argues that "[w]indowing is a well known and recognized term in the art" and "[e]ven if the disclosure of the Dickens patent . . . does not specifically user the term 'windowing' . . . one skilled in the art at the time of the filing of the Dickens patent would have understood the disclosure to contemplate and fully describe and enable the claim limitation." (Dec. Response 63; FF 54.) Appellant asserts that "Exhibit A[] further supports these claims." (App. Br. 11; *see also* Reply Br. 4; Dec. Response 63; FF 54.)

Appellant's arguments are not persuasive. While Appellant argues that the term "windowing" is well known in the art, Appellant does not explain or present any convincing evidence, in either the Toreson Declaration, the Winner Declaration, or elsewhere, to demonstrate what that term would have been understood to mean. The Toreson Declaration, Winner Declaration, and Appellant simply make the conclusory allegation that, with or without Exhibit A, one skilled in the art "would have understood the disclosure to contemplate and fully describe and enable the claim limitation." (FF 54; Dec. Response 63.) There also is no explanation as to how Exhibit A further supports Appellant's allegations. We agree with the Examiner that the claims are indefinite because the scope of the term "windowing" is unclear. Importantly, it is not clear which method steps and/or techniques are encompassed or required by the term "windowing" as used in the claims.

Although the Specification discloses a particular technique for converting symbolic date representations that uses a ten-decade window (FF 1, 4-7), we will not read such limitations from the Specification into the claims. *JVW Enters., Inc. v. Interact Accessories, Inc.* 424 F.3d 1324, 1335 (Fed. Cir. 2005) ("We do not import limitations into claims from examples or embodiments appearing only in a patent's written description, even when a specification describes very specific embodiments of the invention or even describes only a single embodiment, unless the specification makes clear that 'the patentee . . . intends for the claims and the embodiments in the specification to be strictly coextensive.""). Here, the Specification does not

make clear that the patentee intends the claims and the embodiments disclosed in the Specification to be coextensive. Among other things, the Specification states that "[a]lthough a particular embodiment of the invention has been described in detail for purposes of illustration, various modifications and enhancements may be made without departing from the spirit and scope of the invention. Accordingly, the invention is not to be limited except as by the appended claims." ('063 patent, col. 3, 1, 65 to col. 4, 1, 3.)

Furthermore, these claims are indefinite because the term "windowing" is subject to multiple possible interpretations, and the Specification does not reasonably apprise one skilled in the relevant art which interpretation controls. For example, Shaughnessy teaches an application of windowing (*see* Reply Br. 8). The approach of Shaughnessy employs multiple steps including determining the current date, determining the end of the 100 year cycle, determining the two possible century values, assigning a century value, and performing the requested date operation. (FF 13, 15-25.) Thus, one plausible interpretation could interpret "windowing" to include all of these steps. Alternatively, another plausible interpretation could interpret "windowing" to include various subsets of these steps or, perhaps, entirely different steps.

As another example, "windowing," as evidenced by the approach of Shaughnessy, plausibly could be construed as a technique where an end date of the 100 year cycle is compared to the date of interest so that one century value is assigned if the date is *less than or equal to the end of the 100 year* 

cycle date and other century value is assigned if the date is greater than the end of the 100 year cycle date. (FF 22.) But as evidenced by the approach of Hazama and Ohms, "windowing" also plausibly could be construed as a technique where a starting point of the 100 year range is compared with the date of interest such that one century value is assigned if the date is greater than or equal to the starting point and another century value is assigned if the date is less than the starting point. (FF 28, 45.)

Thus, there are multiple plausible constructions for the claim term "windowing."

In addition to not explaining or presenting convincing evidence to show what the claim term "windowing" means, Appellant has not presented any convincing evidence that demonstrates that, as of the filing date of the '574 application, the inventor had possession of the claimed subject matter, i.e., "windowing" the symbolic representations. Nor has Appellant presented any convincing evidence that demonstrates that the Specification enables one of ordinary skill in the art to make and use the claimed invention.

Accordingly, we conclude that Appellant has not shown that the Examiner erred in rejecting claims 34-65, 70, and 71 under 35 U.S.C. § 112, first and second paragraphs.

## Claim limitation: opening the database

The Examiner rejected claims 35, 37, 39, 41, 43, 45, 47,<sup>24</sup> 49, 51, 53, 55, 57, and 59, which recite the limitation of opening a database prior to the converting step, because "the original specification makes no mention of opening the database." (OA 9; *see also* Ans. 7.) We do not agree.

Instead, we agree with Appellant that there is adequate written description support and an enabling disclosure in the original Specification. (Dec. Response 63-64; App. Br. 11; Reply Br. 4; *see also* FF 55.) One of ordinary skill in the art would have understood that Appellant had possession of the claimed subject matter as of the filing date of the '063 patent. In addition, we agree with Appellant (*id.*) that the disclosure of the '063 patent would enable one of ordinary skill in the art to make and use the claimed invention without undue experimentation. Furthermore, the Examiner has not adequately explained why those skilled in the art would not understand what is claimed when the claims are read in light of the Specification or why the claimed subject matter is amenable to multiple plausible constructions.

Therefore, we conclude that Appellant has shown that the Examiner erred in this rejection.

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The Examiner's explanation of the rejection in the office action (OA 9) mistakenly omitted claim 47, which depends from claim 35. However, claim 47 was included in the Examiner's rejections under 35 U.S.C. § 112, first and second paragraphs, in the office action (OA 5), the final office action (FA 3), and the Answer (Ans. 3, 7). Therefore, we consider the omission of claim 47 at page 9 of the office action to be a typographical error.

### Claim limitation: avoiding an ambiguity by reformatting or converting

The Examiner rejected claims 34-65, 70, and 71, which recite the limitation of reformatting or converting so as not to create an ambiguity, because "[t]he original specification merely suggests that dates containing only two digit year representation, and without reformatting, may sort improperly. It does not mention or discuss any such claimed ambiguity." (OA 9; *see also* Ans. 7.) We do not agree.

Instead, we agree with Appellant that there is adequate written description support and an enabling disclosure in the original Specification. (Dec. Response 64; App. Br. 11; Reply Br. 4; *see also* FF 2-6, 56.) One of ordinary skill in the art would have understood that Appellant had possession of the claimed subject matter as of the filing date of the '063 patent. In addition, we agree with Appellant (*id.*) that the disclosure of the '063 patent would enable one of ordinary skill in the art to make and use the claimed invention without undue experimentation. Furthermore, the Examiner has not adequately explained why those skilled in the art would not understand what is claimed when the claims are read in light of the Specification or why the claimed subject matter is amenable to multiple plausible constructions.

Therefore, we conclude that Appellant has shown that the Examiner erred in this rejection.

## Claim limitation: selecting a Y<sub>A</sub>Y<sub>B</sub> value for the first decade

The Examiner rejected claims 1-15, 31, 33, 68, and 72-74, which recite the limitation of selecting a Y<sub>A</sub>Y<sub>B</sub> value for the first decade of a window, because "[t]here is no known meaning for the 'value of a decade." (OA 9; *see also* Ans. 7.) Even though "this subject matter was in the original disclosure," the claims were rejected under 35 U.S.C. § 112, second paragraph, "because the meaning of the claims phraseology is so devoid as to be wholly indefinite." (OA 9; *see also* Ans. 7.) We do not agree.

Instead, we agree with Appellant that there is adequate written description support and an enabling disclosure in the original Specification. (Dec. Response 65; App. Br. 11; Reply Br. 5; *see also* FF 4-6, 57.) One of ordinary skill in the art would have understood that Appellant had possession of the claimed subject matter as of the filing date of the '063 patent. In addition, we agree with Appellant (*id.*) that the disclosure of the '063 patent would enable one of ordinary skill in the art to make and use the claimed invention without undue experimentation. Furthermore, the Examiner has not adequately explained why those skilled in the art would not understand what is claimed when the claims are read in light of the Specification or why the claimed subject matter is amenable to multiple plausible constructions.

Therefore, we conclude that Appellant has shown that the Examiner erred in this rejection.

### § 103(a) Rejections

Appellant argues that the Examiner erred in rejecting claims 1-76 under 35 U.S.C. § 103(a) as being obvious over various combinations of Shaughnessy, Hazama, and Booth and as being obvious over various combinations of Ohms, Hazama, and Booth. (App. Br. 11-29; Reply Br. 5-11; Feb. Response 5-38; Dec. Response 29-54, 65-86.) The issues presented are:

- 1. Has Appellant shown that the Examiner erred in rejecting claims 1-76 under 35 U.S.C. § 103(a) as being obvious over various combinations of Shaughnessy, Hazama, and Booth?
- 2. Has Appellant shown that the Examiner erred in rejecting claims 1-76 under 35 U.S.C. § 103(a) as being obvious over various combinations of Ohms, Hazama, and Booth?

For reasons discussed below, we find that Appellant has not shown that the Examiner erred in rejecting:

- 1. Claims 1-15, 68, 69, and 73-76 as being obvious under 35 U.S.C. § 103(a) in view of various combinations of Shaughnessy, Hazama, and Booth; and
- 2. Claims 1-15, 68, 69, and 73-76 as being obvious under 35 U.S.C. § 103(a) in view of various combinations of Ohms, Hazama, and Booth.

However, for reasons discussed below, we vacate the rejection of claims 16-67 and 70-72 for obviousness under 35 U.S.C. § 103(a) because,

as discussed above, these claims are indefinite under 35 U.S.C. § 112, second paragraph.

# Claims 1-3, 5, 7, 9, and 10

Claims 1-3, 5, 7, 9 and 10 stand rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy and Hazama (FA 3; OA 10-16) and as being obvious over Ohms and Hazama (FA 9; OA 107-111).

# Claims 1-3: Shaughnessy / Hazama

Regarding claim 1, Appellant argues<sup>25</sup> that Shaughnessy and Hazama do not teach or suggest:<sup>26</sup>

(1) "selecting a 10-decade window with a Y<sub>A</sub> Y<sub>B</sub> value for the first decade of the window, Y<sub>A</sub> Y<sub>B</sub> being no later than the earliest Y<sub>1</sub> Y<sub>2</sub> year designator in the database." (Feb. Response 13; see also Dec. Response 65-66.) Instead, according to Appellant, "[t]he Shaughnessy method selects a 10-decade window utilizing the 'date the system was installed.'" (Feb. Response 13; see also Dec. Response 65-66.) Appellant also argues that Shaughnessy does not disclose "all of the symbolic representations of dates falling within a 10 decade period of time" (Dec. Response 35), as claimed

<sup>&</sup>lt;sup>25</sup> See generally App. Br. 11-12; Reply Br. 6-11.

Although Appellant also argued that Booth does not teach these limitations (Feb. Response 19-21; Dec. Response 77-79), the Examiner correctly pointed out (Office Action of July 22, 2002 at 208-209) that Booth was not relied upon to teach these limitations and therefore Appellant's arguments are not germane.

because Shaughnessy discloses "data bases where the data contained could include a span of over 100 years." (Dec. Response 35.);

- (2) "determining a century designator  $C_1$   $C_2$  for each symbolic representation of a date in the database." (Feb. Response 13, 15; see also Dec. Response 36, 67-71.) According to Appellant, this limitation is not taught or suggested because "[t]he teaching of Shaughnessy [or Shaughnessy in view of Hazama] is to determine a century designator for at most two date data representations being processed in a called subroutine at any given time" (Feb. Response 13; see also Feb. Response 15, Dec. Response 36, 67-71), and thus not for "each symbolic representation of a date in the database" (Dec. Response 36). Appellant contends that the combination of Shaughnessy and Hazama "does not 'teach or suggest the determination of a century designator for each date in the database." (Dec. Response 68 (emphasis added).); and
- (3) "reformatting the symbolic representation of the date with the values  $C_1$   $C_2$ ,  $Y_1$   $Y_2$ ,  $M_1$   $M_2$ , and  $D_1$   $D_2$  to facilitate further processing of the dates." (Feb. Response 13; see also Feb. Response 15, Dec. Response 36-37, 72-74.) According to Appellant, this limitation is not taught or suggested because "[t]he teaching of Shaughnessy [or Shaughnessy in view of Hazama] is to reformat two dates at a time in the called subroutine and the return to the program from the called subroutine of an indicator of the result of the processing of the two reformatted date data entries. Shaughnessy [or Shaughnessy in view of Hazama] does not teach facilitating 'further processing of the dates' by 'reformatting the symbolic representation of the

date . . . . for each symbolic representation of a date in the database." (Feb. Response 13, 15; *see also* Dec. Response 36-37, 72-74.)

In addition, Appellant argues that the Examiner has not presented sufficient evidence to combine the teachings of Shaughnessy and Hazama (Dec. Response 38), that "Shaughnessy actually teaches away" (Dec. Response 38), "[t]he method of operation and/or the theory of operations [sic] of Shaughnessy, or Hazama would respectively have to be changed to be combined with one another" (Dec. Response 38), and that the Examiner used an improper hindsight reconstruction (Dec. Response 69).

Appellant's arguments present the following issue:

Has Appellant shown that the Examiner erred in rejecting claims 1-3 under 35 U.S.C. § 103(a) as being obvious over Shaughnessy and Hazama?

The resolution of this issue turns on the following subsidiary issues:

1. Has Appellant shown that the Examiner erred in finding that Shaughnessy and Hazama teach or suggest "selecting a 10-decade window with a  $Y_A Y_B$  value for the first decade of the window,  $Y_A Y_B$  being no later than the earliest  $Y_1 Y_2$  year designator in the database"?

- 2. Has Appellant shown that the Examiner erred in finding that Shaughnessy and Hazama teach or suggest "determining a century designator  $C_1$   $C_2$  for each symbolic representation of a date in the database"?
- 3. Has Appellant shown that the Examiner erred in finding that Shaughnessy and Hazama teach or suggest "reformatting the symbolic representation of the date with the values C<sub>1</sub> C<sub>2</sub>, Y<sub>1</sub> Y<sub>2</sub>, M<sub>1</sub> M<sub>2</sub>, and D<sub>1</sub> D<sub>2</sub> to facilitate further processing of the dates"?
- 4. Has Appellant shown that the Examiner erred by improperly combining the applied references?

Appellant's arguments that the Examiner erred in rejecting claim 1 as being obvious over Shaughnessy and Hazama are not persuasive.

Regarding the first subsidiary issue, the Examiner correctly found that the combination of Shaughnessy and Hazama teaches "selecting a 10-decade window with a  $Y_A$   $Y_B$  value for the first decade of the window,  $Y_A$   $Y_B$  being no later than the earliest  $Y_1$   $Y_2$  year designator in the database," as claimed. (Ans. 12; OA 11-14; FF 15, 18, 28.)

In particular, Figure 4 of Shaughnessy teaches selecting a 10-decade window. (FF 18; Ans. 12.) Appellant argues that Shaughnessy selects a 10-decade window by using the system install date. However, this argument misses the mark. Figure 4 of Shaughnessy teaches the selection of the 10-decade window by teaching steps to determine the end of a 100 year

cycle. (FF 18.) In other words, Shaughnessy determines the end of the 100 year cycle, which necessarily determines the beginning of the 100 year cycle as well. Various parameters are specified to determine the end of the 100 year cycle, including the number of years of future dating *required*. (FF 18.) In the method of Figure 4, a starting date is set to either the current date (as determined in part by the system install date (FF 17)), the system install date, or a default date. (FF 18.) "Next, the end of the 100 year cycle is determined by adding the number of years of future dating required to the starting date." (FF 18.) It is important to note that this "starting date," which may be based upon the system install date, is not the starting date of the 100 year cycle. Rather, it is a starting date used to calculate the end of the 100 year cycle when the parameter describing the number of years of future dating *required* is added to it. Once the end of the 100 year cycle is determined, the beginning of the 100 year cycle is necessarily determined as well.

Although Shaughnessy does not explicitly teach that the starting year for the window is selected to be less than any date in the database,<sup>27</sup> we agree with the Examiner that this would have been a matter of common sense for one of ordinary skill in the art, as evidenced by Hazama, and, in any event, this limitation is explicitly taught by Hazama. (Ans. 12; OA 10-14; FF 28.) As pointed out by the Examiner, "Shaughnessy cannot operate

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Or, to use the wording of the claim, Shaughnessy does not explicitly teach that the  $Y_A$   $Y_B$  value for the first decade of the window is no later than the earliest  $Y_1$   $Y_2$  year designator in the database.

correctly unless the pivot date is less than any date in the database" because otherwise "any dates in the database that were less than the pivot date would be incorrectly altered to a date in the succeeding century." (OA 11.) In addition, "one of ordinary skill in the art of programming would know and would be adept at setting parameters to correctly process a set of data." (OA 11.) In Shaughnessy, one of ordinary skill in the art would know to set the parameters, including the *required* number of years of future dating (*see* FF 18), to yield an end of 100 year cycle date that results in a beginning date for the 100 year cycle that is less than any other year in the database. This is no more than common sense. If it were otherwise, then Shaughnessy would not work properly and would return incorrect results.

In addition, Hazama explicitly teaches that it was known to select the starting year for the 10-decade window to be less than any date in the database. (FF 28.) To select the starting year for the 10-decade window in Shaughnessy to be less than any other year in the database, as taught by Hazama, would be no more than the combination of familiar elements according to known methods with no unpredictable results. Appellant has not presented any credible evidence that using this technique taught by Hazama in the method of Shaughnessy would be beyond the level of ordinary skill in the art. In other words, Appellant has not shown that this would have been "uniquely challenging or difficult for one of ordinary skill in the art" or that it "represented an unobvious step over the prior art." *Leapfrog Enters. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (citing *KSR*, 127 S. Ct. at 1740-41). Further, Appellant has not presented

credible evidence of secondary considerations of nonobviousness to rebut the Examiner's prima facie case. *Cf. Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1218, 1327 (Fed. Cir. 2008) (finding evidence of secondary factors either lacked nexus to claims or relationship "simply too attenuated to overcome the strong prima facie demonstration . . . that the claims are obvious.").

Appellant's argument that Shaughnessy does not disclose all dates in the database falling within a 10 decade period of time is not convincing. As the Examiner pointed out, Shaughnessy "discloses the claimed all of the symbolic representations of dates falling within a 10 decade period of time as a date having a cycle or a range of 100 years (col. 18, Cycle/Range C1 = THE DATE CYCLE IS 100 YEARS)." (OA 12.) While Appellant may be correct that Shaughnessy could support other date spans of over 100 years, this does not diminish Shaughnessy's teaching of a database that spans 100 years, as claimed. In addition, Hazama teaches a database where the dates fall within a 10 decade period of time by teaching that "if there are data from year 1999 in file (6), up to year 2098 can be handled." (FF 28.)

Accordingly, Appellant has not shown that the Examiner erred in finding that Shaughnessy and Hazama teach or suggest "selecting a 10-decade window with a  $Y_A$   $Y_B$  value for the first decade of the window,  $Y_A$   $Y_B$  being no later than the earliest  $Y_1$   $Y_2$  year designator in the database."

Regarding the second subsidiary issue, the Examiner correctly found that the combination of Shaughnessy and Hazama teaches "determining a century designator  $C_1$   $C_2$  for each symbolic representation of a date in the

database," as claimed. (Ans. 12-14; OA 11-14; FF 15-24, 28.) In particular, Shaughnessy teaches that "a century value can be assigned to a two digit representation of the year based upon where the year falls in the current 100 year cycle." (FF 19.) Figures 6 and 7 of Shaughnessy "illustrate how this century assignment is accomplished." (FF 17; *see also* FF 20-23.) Hazama teaches this limitation as well. (FF 28; *see also* FF 26, 29.)

Appellant's argument regarding *each* date in the database is not persuasive. Claim 1 recites "providing a database with symbolic representations of dates stored therein." This language does not place any restriction on the number of symbolic representations of dates stored in the database except, perhaps, it may be argued that more than one symbolic representation is implied by the use of the plural word "dates." Appellant does not point to anything in the Specification or otherwise that requires us to interpret claim 1 to preclude the database from having just two entries stored therein. Therefore, Appellant's argument that Shaughnessy does not determine a century designator for *each* date in the database because it merely determines a century designator for at most two date representations is not persuasive. Nothing precludes the database from having just two representations. Therefore, Shaughnessy meets this claim limitation.

Accordingly, Appellant has not shown that the Examiner erred in finding that Shaughnessy and Hazama teach or suggest "determining a century designator  $C_1$   $C_2$  for each symbolic representation of a date in the database."

Regarding the third subsidiary issue, the Examiner correctly found that the combination of Shaughnessy and Hazama teaches "reformatting the symbolic representation of the date with the values C<sub>1</sub> C<sub>2</sub>, Y<sub>1</sub> Y<sub>2</sub>, M<sub>1</sub> M<sub>2</sub>, and D<sub>1</sub> D<sub>2</sub> to facilitate further processing of the dates," as claimed. (Ans. 14; OA 13; FF 13, 16-17, 20-21, 24-25.) In particular, as the Examiner found (Ans. 14; OA 13), Shaughnessy teaches reformatting the symbolic representation of the date to yield a CCYYMMDD date format and returning a date field with the converted date to the subroutine and by returning a parameter to the application program for use in further operations. (FF 13, 16-17, 20-21, 24-25.)

Appellant's argument regarding *each* date in the database is not persuasive. As discussed *supra*, nothing precludes the database from having just two representations. Therefore, Shaughnessy meets this claim limitation.

Accordingly, Appellant has not shown that the Examiner erred in finding that Shaughnessy and Hazama teach or suggest "reformatting the symbolic representation of the date with the values  $C_1$   $C_2$ ,  $Y_1$   $Y_2$ ,  $M_1$   $M_2$ , and  $D_1$   $D_2$  to facilitate further processing of the dates."

Regarding the fourth subsidiary issue, the Examiner has articulated a reason with rational underpinnings (OA 14, 11) as to why one of ordinary skill in the art would combine the teachings of the applied references. In particular, the Examiner found that one of ordinary skill in the art "having read Shaughnessy would immediately see the need to determine which 100 year span to use" and "[t]his determination would have led the ordinary

skilled artisan to the Hazama reference, which teaches the pivot date being smaller than the smallest two digit date in the database having all the dates within a 100 year period as a solution to restrict the selection of Shaughnessy's window . . . . " (OA 14.) In addition, the Examiner stated that "the Hazama reference is provided to demonstrate that, apart from being logically necessary, this attribute of the pivot date being earlier than the dates in the database was, in fact, known to those of ordinary skill in the art at the time of the invention, and not a ground breaking discovery by the applicant." (OA 11.) Appellant has not presented credible evidence to demonstrate error in this rationale or to demonstrate that the Examiner used improper hindsight. Appellant has not convincingly explained why Shaughnessy teaches away or why Shaughnessy's method of operation would need to be changed in order to incorporate the teachings of Hazama. As discussed *supra*, the selection of the end of the 100 year cycle taught by Shaughnessy necessarily results in a selection of the beginning of the 100 year cycle and one of ordinary skill in the art would be adept at selecting the parameters to correctly process the data, as evidenced by Hazama.

Therefore, Appellant has not shown that the Examiner erred by improperly combining the applied references.

Accordingly, we conclude that Appellant has not shown that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 103(a) as being obvious over Shaughnessy and Hazama. Claims 2 and 3, which depend from claim 1, were not argued separately (App. Br. 12; Feb. Response 14;

Dec. Response 38-40) and fall together with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(vii).

#### Claims 1-3: Ohms / Hazama

With respect to claim 1, Appellant argues<sup>28</sup> that Ohms does not teach or suggest:

(1) "providing a database with symbolic representations of dates stored therein according to a format wherein M<sub>1</sub> M<sub>2</sub> is the numerical month designator, D<sub>1</sub> D<sub>2</sub> is the numerical day designator, and Y<sub>1</sub> Y<sub>2</sub> is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time." (Feb. Response 22; see also Dec. Response 51-52, 82-83.) According to Appellant, "[u]nlike this recitation of claim 1, Ohms teaches providing a database with the dates in a Lilian format." (Feb. Response 22; see also Dec. Response 51-52, 82-83.)) Appellant contends that Ohms "simply teaches storing dates in a database in Lilian format which 'handles processing across century years' and '[a]ccommodating end users' who 'enter two digits for the year' by 'providing a conversion function' using windowing for data entry." (Feb. Response 22.);

(2) "providing a database ... all of the symbolic representations of dates falling within a 10-decade period of time." (Feb. Response 22; see also Dec. Response 51-52, 82-83.) Instead, according to Appellant, "Ohms teaches having data in the database in Lilian format, i.e., within a ninety-

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<sup>&</sup>lt;sup>28</sup> See generally App. Br. 20; Reply Br. 6-11.

nine million day window (seven chronological day date numbers starting at a given date)." (Feb. Response 22; *see also* Dec. Response 51-52, 82-83.);

- (3) "selecting a 10-decade window with a Y<sub>A</sub> Y<sub>B</sub> value for the first decade of the window, Y<sub>A</sub> Y<sub>B</sub> being no later than the earliest Y<sub>1</sub> Y<sub>2</sub> year designator in the database." (Feb. Response 22; see also Dec. Response 52, 83.) According to Appellant, "[a]t best Ohms teaches or suggests selecting a Y<sub>A</sub>Y<sub>B</sub> based upon dates that are currently being input into the database." (Feb. Response 22; see also Dec. Response 52, 83.);
- (4) "determining a century designator  $C_1$   $C_2$  for each symbolic representation of a date in the database,  $C_1$   $C_2$  having ...; ...." (Feb. Response 22-23; see also Dec. Response 84.) According to Appellant, "Ohms teaches entering date data into the database to be converted into Lilian format for storage and manipulation within the database. He does not teach or suggest determining a century designator for data in the database. Lilian format needs none." (Feb. Response 22-23; see also Dec. Response 84.); and
- (5) "reformatting the symbolic representation of the date with the values  $C_1$   $C_2$ ,  $Y_1$   $Y_2$ ,  $M_1$   $M_2$ , and  $D_1$   $D_2$  to facilitate further processing of the dates." (Feb. Response 22-23; see also Dec. Response 84.) According to Appellant, "Ohms teaches reformatting into Lilian format and thereafter processing the date data in the database utilizing the Lilian format." (Feb. Response 22-23; see also Dec. Response 84.)

Appellant also argues that "the addition of Hazama's disclosure of a pivot date smaller than the smallest date in the database does not result in a

*prima facie* showing of obviousness, because, at least, the above noted elements of the claimed invention are not shown in Ohms." (Dec. Response 52.)

In addition, Appellant argues that there is no motivation to combine the applied references because Ohms is non-analogous art and teaches away (Feb. Response 23; Dec. Response 52-53), the combination would render Hazama inoperative for its intended purpose and would change the principle of operation of Hazama (Dec. Response 53). Appellant further argues that Booth "adds nothing to the combination of references that Ohms itself does not contribute." (Dec. Response 54.)

Appellant's arguments present the following issue:

Has Appellant shown that the Examiner erred in rejecting claims 1-3 under 35 U.S.C. § 103(a) as being obvious over Ohms and Hazama?

The resolution of this issue turns on the following subsidiary issues:

1. Has Appellant shown that the Examiner erred in finding that Ohms and Hazama teach or suggest "providing a database with symbolic representations of dates stored therein according to a format wherein  $M_1 M_2$  is the numerical month designator,  $D_1 D_2$  is the numerical day designator,

<sup>&</sup>lt;sup>29</sup> Booth was not relied upon for this rejection and therefore Appellant's arguments regarding Booth are not germane.

and  $Y_1$   $Y_2$  is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time"?

- 2. Has Appellant shown that the Examiner erred in finding that Ohms and Hazama teach or suggest "providing a database ... all of the symbolic representations of dates falling within a 10-decade period of time"?
- 3. Has Appellant shown that the Examiner erred in finding that Ohms and Hazama teach or suggest "selecting a 10-decade window with a  $Y_A$   $Y_B$  value for the first decade of the window,  $Y_A$   $Y_B$  being no later than the earliest  $Y_1$   $Y_2$  year designator in the database"?
- 4. Has Appellant shown that the Examiner erred in finding that Ohms and Hazama teach or suggest "determining a century designator  $C_1$   $C_2$  for each symbolic representation of a date in the database,  $C_1$   $C_2$  having ..."?
- 5. Has Appellant shown that the Examiner erred in finding that Ohms and Hazama teach or suggest "reformatting the symbolic representation of the date with the values  $C_1$   $C_2$ ,  $Y_1$   $Y_2$ ,  $M_1$   $M_2$ , and  $D_1$   $D_2$  to facilitate further processing of the dates"?
- 6. Has Appellant shown that the Examiner erred by improperly combining the applied references?

Appellant's arguments that the Examiner erred in rejecting 1 as being obvious over Ohms and Hazama are not persuasive.

Regarding the first subsidiary issue, the Examiner correctly found that the combination of Ohms and Hazama teaches "providing a database with symbolic representations of dates stored therein according to a format wherein  $M_1 M_2$  is the numerical month designator,  $D_1 D_2$  is the numerical day designator, and  $Y_1 Y_2$  is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time," as claimed. (Ans. 21-22; OA 107-108; FF 41-45.) In particular, Ohms teaches a short Gregorian format (YYMMDD) and also teaches storing dates in a database in a Gregorian format. (FF 41, 44-46.)

We further agree with the Examiner (Ans. 21-22) that Appellant has misread the teachings of Ohms as being limited to dates in a Lilian format. While the teachings of Ohms include dates in a Lilian format, they are not so limited. The teachings of Ohms include and apply to dates in a Gregorian format. (FF 41-44.)

Accordingly, Appellant has not shown that the Examiner erred in finding that Ohms and Hazama teach or suggest "providing a database with symbolic representations of dates stored therein according to a format wherein  $M_1 M_2$  is the numerical month designator,  $D_1 D_2$  is the numerical day designator, and  $Y_1 Y_2$  is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time."

Regarding the second subsidiary issue, the Examiner correctly found that the combination of Ohms and Hazama teaches "providing a database ...

all of the symbolic representations of dates falling within a 10-decade period of time," as claimed. (Ans. 22; OA 108; FF 43, 45.) As discussed *supra*, the teachings of Ohms are not limited to dates in a Lilian format and also include dates in a Gregorian format.

Accordingly, Appellant has not shown that the Examiner erred in finding that Ohms and Hazama teach or suggest "providing a database ... all of the symbolic representations of dates falling within a 10-decade period of time."

Regarding the third subsidiary issue, the Examiner correctly found that the combination of Ohms and Hazama teaches "selecting a 10-decade window with a  $Y_A$   $Y_B$  value for the first decade of the window,  $Y_A$   $Y_B$  being no later than the earliest  $Y_1$   $Y_2$  year designator in the database," as claimed. (Ans. 22; OA 108-109; FF 28, 43, 45.) In particular, the Examiner found that Ohms teaches "specifying a year as the desired starting point (pivot date) of the 100 year window" (OA 108) and found that Hazama complements Ohms by teaching "a pivot year date that is smaller than the smallest two digit year date in the database." (Ans. 22; *see also* FF 28.) In addition, the Examiner found that "[t]he ordinary skilled artisan having read Ohms would immediately see the need to determine which 100 year span to use" (OA 109) and would have been led to the "pivot date" selection teaching of Hazama. Appellant has not presented convincing evidence or argument to show error in the Examiner's findings and reasoning.

Accordingly, Appellant has not shown that the Examiner erred in finding that Ohms and Hazama teach or suggest "selecting a 10-decade

window with a  $Y_A$   $Y_B$  value for the first decade of the window,  $Y_A$   $Y_B$  being no later than the earliest  $Y_1$   $Y_2$  year designator in the database."

Regarding the fourth subsidiary issue, the Examiner correctly found that the combination of Ohms and Hazama teaches "determining a century designator C<sub>1</sub> C<sub>2</sub> for each symbolic representation of a date in the database, C<sub>1</sub> C<sub>2</sub> having ...," as claimed. (Ans. 22-23; OA 108; FF 28, 43.) As discussed *supra*, Appellant has misread the teachings of Ohms. We agree with the Examiner that Ohms is not limited to teaching the converting of the data into Lilian format for storage and manipulation in the database. (Ans. 23.) Instead, Ohms discloses the recited determination of a century designator by teaching or suggesting conversion of dates stored in a database in Gregorian format from a short Gregorian format (six digits) without a century designator (i.e., a two digit year) to a Gregorian format (eight digits) that includes the century designator (i.e., a four digit year). (FF 43-45.) Appellant has not presented convincing evidence or argument to show error in the Examiner's findings or reasoning.

Accordingly, Appellant has not shown that the Examiner erred in finding that Ohms and Hazama teach or suggest "determining a century designator  $C_1$   $C_2$  for each symbolic representation of a date in the database,  $C_1$   $C_2$  having ...."

Regarding the fifth subsidiary issue, the Examiner correctly found that the combination of Ohms and Hazama teaches "reformatting the symbolic representation of the date with the values  $C_1$   $C_2$ ,  $Y_1$   $Y_2$ ,  $M_1$   $M_2$ , and  $D_1$   $D_2$  to facilitate further processing of the dates," as claimed. (Ans. 23; OA 108;

FF 42-44.) As discussed *supra*, Appellant has misread the teachings of Ohms. We agree with the Examiner that Ohms is not limited to teaching reformatting into Lilian format and processing the data in the database using the Lilian format. (Ans. 23.) Instead, Ohms discloses the recited determination of a century designator by teaching or suggesting conversion of dates stored in a database in Gregorian format from a short Gregorian format (six digits) without a century designator to a Gregorian format (eight digits) that includes the century designator. (FF 43, 44.) Appellant has not presented convincing evidence or argument to show error in the Examiner's findings or reasoning.

Accordingly, Appellant has not shown that the Examiner erred in finding that Ohms and Hazama teach or suggest "reformatting the symbolic representation of the date with the values  $C_1$   $C_2$ ,  $Y_1$   $Y_2$ ,  $M_1$   $M_2$ , and  $D_1$   $D_2$  to facilitate further processing of the dates."

Regarding the sixth subsidiary issue, the Examiner has articulated a reason with rational underpinnings (OA 108-109) as to why one of ordinary skill in the art would combine the teachings of Ohms and Hazama. The Examiner found that "[t]he ordinary skilled artisan having read Ohms would immediately see the need to determine which 100 year span to use" (OA 109) and would have been led to the "pivot date" selection teaching of Hazama (OA 109). Appellant has not presented credible evidence to demonstrate error in this rationale or to demonstrate that the Examiner used improper hindsight. Appellant has not convincingly explained why Ohms is non-analogous art or teaches away because, as discussed, Ohms is not

limited to teaching dates in a Lilian format. Appellant also has not convincingly explained why the combination would render Hazama inoperative for its intended purpose or why it would change the principle of operation of Hazama.

Therefore, Appellant has not shown that the Examiner erred by improperly combining the applied references.

Accordingly, we conclude that Appellant has not shown that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 103(a) as being obvious over Ohms and Hazama. Claims 2 and 3, which depend from claim 1, were not argued separately (App. Br. 12; Feb. Response 24; Dec. Response 51-54) and fall together with claim 1. See 37 C.F.R. § 41.37(c)(1)(vii).

# Claim 5: Shaughnessy / Hazama

With respect to claim 5, Appellant argues<sup>30</sup> that there is no teaching or suggestion in Shaughnessy or Shaughnessy in view of Hazama of "reformatting each symbolic representation of a date into the format  $C_1$   $C_2$  $Y_1 Y_2 M_1 M_2 D_1 D_2$ ." (Feb. Response 14; see also Feb. Response 16, Dec. Response 39, 75.)

However, we agree with the Examiner (Ans. 15; OA 14-15; see also FF 13, 16-17, 20-21, 24-25) that Shaughnessy teaches or suggests the disputed limitation of dependent claim 5. Appellant has not made any effort to show error in the Examiner's findings and reasoning. Therefore, we

<sup>&</sup>lt;sup>30</sup> See generally App. Br. 11-12; Reply Br. 6-11.

affirm the rejection of dependent claim 5 for the reasons stated by the Examiner.

#### Claim 5: Ohms / Hazama

With respect to claim 5, Appellant argues<sup>31</sup> that there is no teaching or suggestion in Ohms of "reformatting each symbolic representation of a date into the format  $C_1$   $C_2$   $Y_1$   $Y_2$   $M_1$   $M_2$   $D_1$   $D_2$ ." (Feb. Response 23; see also Dec. Response 51-54.)

However, we agree with the Examiner (Ans. 23-24; OA 110; *see also* FF 43-44) that Ohms teaches or suggests the disputed limitations of dependent claim 5. Appellant has not made any effort to show error in the Examiner's findings and reasoning. Therefore, we affirm the rejection of dependent claim 5 for the reasons stated by the Examiner.

# Claim 7: Shaughnessy / Hazama

With respect to claim 7, Appellant argues<sup>32</sup> that there is no teaching or suggestion in Shaughnessy or Shaughnessy in view of Hazama of "converting pre-existing date information[within a database] having a different format into the format wherein M<sub>1</sub> M<sub>2</sub> is the numerical month designator, D<sub>1</sub> D<sub>2</sub> is the numerical day designator and Y<sub>1</sub> Y<sub>2</sub> is the numerical year designator." (Feb. Response 14; *see also* Feb. Response 16, Dec. Response 39, 75.)

<sup>32</sup> See generally App. Br. 11-12; Reply Br. 6-11.

<sup>&</sup>lt;sup>31</sup> See generally App. Br. 20-21; Reply Br. 6-11.

However, we agree with the Examiner (Ans. 16; OA 15; FF 22-24) that Shaughnessy teaches or suggests the disputed limitation of dependent claim 7. Appellant has not made any effort to show error in the Examiner's findings and reasoning. Therefore, we affirm the rejection of dependent claim 7 for the reasons stated by the Examiner.

#### Claim 7: Ohms / Hazama

With respect to claim 7, Appellant argues<sup>33</sup> that there is no teaching or suggestion in Ohms of "converting pre-existing date information having a different format into the format wherein  $M_1$   $M_2$  is the numerical month designator,  $D_1$   $D_2$  is the numerical day designator and  $Y_1$   $Y_2$  is the numerical year designator." (Feb. Response 23-24; see also Dec. Response 51-54.)

However, we agree with the Examiner (Ans. 24; OA 110; *see also* FF 43, 44) that Ohms teaches or suggests the disputed limitations of dependent claim 7. Appellant has not made any effort to show error in the Examiner's findings and reasoning. Therefore, we affirm the rejection of dependent claim 7 for the reasons stated by the Examiner.

# Claim 9: Shaughnessy/Hazama

With respect to claim 9, Appellant argues<sup>34</sup> that there is no teaching or suggestion in Shaughnessy or Shaughnessy in view of Hazama of "*storing* the symbolic representation of dates and their associated information back

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<sup>&</sup>lt;sup>33</sup> See generally App. Br. 20; Reply Br. 6-11.

<sup>&</sup>lt;sup>34</sup> See generally App. Br. 11-12; Reply Br. 6-11.

into the database." (Feb. Response 14; *see also* Feb. Response 23-24, Dec. Response 39-40, 75.)

The Examiner found that Shaughnessy teaches storing the symbolic representation of dates back into the database as a possible, although more expensive, solution to the Y2K problem. (Ans. 15-16; OA 15; *see also* FF 12.) The Examiner took notice that this solution "taught by Shaughnessy as an available solution, is the only permanent solution." (OA 15.)

Appellant's arguments are not convincing. The Examiner has explained how Shaughnessy teaches or suggests the disputed limitation. Although Appellant complains that the Examiner's taking of "'Administrative notice' is not a substitute for providing a reference" (Dec. Response 39), Appellant has not presented any convincing evidence or argument to show that the Examiner erred.

Accordingly, we conclude that Appellant has not shown that the Examiner erred in rejecting claim 9 under 35 U.S.C. § 103(a).

#### Claim 9: Ohms / Hazama

With respect to claim 9, Appellant argues<sup>35</sup> that there is no teaching or suggestion in Ohms of "*storing the symbolic representation of dates* and their associated information back into the database." (Feb. Response 23; *see also* Dec. Response 51-54.)

However, we agree with the Examiner (Ans. 24; OA 110; *see also* FF 46) that Ohms teaches or suggests the disputed limitation of dependent

<sup>&</sup>lt;sup>35</sup> See generally App. Br. 20; Reply Br. 6-11.

claim 9. Appellant has not made any effort to show error in the Examiner's findings and reasoning. Therefore, we affirm the rejection of dependent claim 9 for the reasons stated by the Examiner.

## Claim 10: Shaughnessy / Hazama

With respect to claim 10, Appellant argues<sup>36</sup> that there is no teaching or suggestion in Shaughnessy or Shaughnessy in view of Hazama of "manipulating information in the database *having the reformatted date information therein.*" (Feb. Response 14; *see also* Feb. Response 16, Dec. Response 39, 75.)

However, we agree with the Examiner (Ans. 15; OA 16; *see also* FF 12, 18) that Shaughnessy teaches or suggests the disputed limitation of dependent claim 10. Appellant has not made any effort to show error in the Examiner's findings and reasoning. Therefore, we affirm the rejection of dependent claim 10 for the reasons stated by the Examiner.

#### Claim 10: Ohms / Hazama

With respect to claim 10, Appellant argues<sup>37</sup> that there is no teaching or suggestion in Ohms of "manipulating information in the database *having* the reformatted date information therein." (Feb. Response 23; see also Dec. Response 51-54.)

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<sup>&</sup>lt;sup>36</sup> See generally App. Br. 20; Reply Br. 6-11.

<sup>&</sup>lt;sup>37</sup> See generally App. Br. 20; Reply Br. 6-11.

However, we agree with the Examiner (Ans. 24; OA 110-111; *see also* FF 46) that Ohms teaches or suggests the disputed limitation of dependent claim 10. Appellant has not made any effort to show error in the Examiner's findings and reasoning. Therefore, we affirm the rejection of dependent claim 10 for the reasons stated by the Examiner.

#### Summary

Accordingly, we conclude that Appellant has not shown that the Examiner erred in rejecting claims 1-3, 5, 7, 9 and 10 under 35 U.S.C. § 103(a).

## Claims 4, 6, and 8

Claims 4, 6, and 8 stand rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy, Hazama, and Booth (FA 4; OA 16-18) and as being obvious over Ohms, Hazama, and Booth (FA 9; OA 111-113).

# Claim 4: Shaughnessy / Hazama / Booth

With respect to claim 4, Appellant argues<sup>38</sup> that there is no teaching or suggestion in Shaughnessy, Shaughnessy in view of Hazama, or Booth, of "sorting the symbolic representations of dates." (Feb. Response 13; see also Feb. Response 14-16, 21; Dec. Response 40-42.) According to Appellant, "[w]hatever sorting Booth teaches does not need to first reformat the date data, since the integer format can be and is sorted in its initial format. The

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<sup>&</sup>lt;sup>38</sup> See generally App. Br. 12-13; Reply Br. 6-11.

method of the claimed invention, including the reformatting steps is simply not relevant to a database that stores date data as Clipper does, in integer format, as described in Booth." (Feb. Response 21.) Appellant also argues that Booth is non-analogous art, teaches away, and that modifying Shaughnessy or the combination of Shaughnessy and Hazama with the teachings of Booth would render them inoperative for their intended purpose and would change their principle of operation. (Dec. Response 41.)

Appellant's arguments present the following issue:

Has Appellant shown that the Examiner erred in rejecting claim 4 under 35 U.S.C. § 103(a)?

The resolution of this issue turns on the following subsidiary issues:

- 1. Has Appellant shown that the Examiner erred in finding that Booth teaches "sorting the symbolic representations of dates"?
- 2. Has Appellant shown that the Examiner erred by improperly combining the references?

Appellant's arguments that the Examiner erred in rejecting claim 4 as being obvious over Shaughnessy, Hazama, and Booth are not persuasive.

Regarding the first subsidiary issue, the Examiner correctly found that Booth teaches the disputed limitation of dependent claim 4. (Ans. 14-15; OA 16-17; FF 36-38, see also FF 31-35, 39.) In particular, the Examiner found that Booth, analogously to Shaughnessy, teaches the SET EPOCH command for comparing a two-digit year with the SET EPOCH year setting to determine which century to place the date into and teaches converting a six digit date (MMDDYY) into an eight digit date (CCYYMMDD). (OA 16; FF 33-35.) "Additionally, Booth complements Shaughnessy and Hazama by suggesting the sorting of converted dates after having been reformatted by the SET EPOCH command." (OA 16; FF 36-38.) The SORT command taught by Booth allows the selection of which field or fields should be sorted on, the selection of which records should be sorted, and the selection of how the sort will be conducted -- i.e., in ascending order, descending order, or "dictionary order." (FF 38.) Appellant has not shown error in these findings. Appellant's argument regarding integer format does not diminish the above noted teachings of Booth. Even if Appellant is correct, claim 4 does not preclude the dates being in an integer format and Appellant has not shown that Booth would not suggest sorting those dates after reformatting.

Therefore, Appellant has not shown that the Examiner erred in finding that Booth teaches "sorting the symbolic representations of dates."

Regarding the second subsidiary issue, the Examiner has articulated a reason with rational underpinnings (OA 16-17) as to why one of ordinary skill in the art would combine the teachings of the applied references -- namely that "Booth's teaching of sorting reformatted dates would facilitate

Shaughnessy-Hazama's system to return the reformatted dates in chronological sequence" (OA 16). Appellant has not presented credible evidence to demonstrate error in this rationale or to demonstrate that the Examiner used improper hindsight. Appellant has not convincingly explained why Booth would teach away. For example, the two digit year format (FF 33) disclosed by Booth is subject to the Y2K date ambiguity problem just as with Shaughnessy and Hazama. Appellant also has not convincingly explained why Shaughnessy's and/or Hazama's principle of operation would need to be changed to incorporate the sort teachings of Booth or why these references would be rendered inoperative if the sort teachings of Booth were incorporated.

Therefore, Appellant has not shown that the Examiner erred by improperly combining the applied references.

Accordingly, we conclude that Appellant has not shown that the Examiner erred in rejecting claim 4 under 35 U.S.C. § 103(a).

#### Claim 4: Ohms / Hazama / Booth

With respect to claim 4, Appellant argues<sup>39</sup> that there is no teaching or suggestion in Ohms of "*sorting the symbolic representations of dates*." (Feb. Response 23; *see also* Feb. Response 24-26; Dec. Response 51-54.)

However, as pointed out by the Examiner (Ans. 23-24; OA 111; *see also* FF 31-39), it was not Ohms but rather Booth that was relied upon to teach the disputed limitation of dependent claim 4. As discussed *supra*, we

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<sup>&</sup>lt;sup>39</sup> See generally App. Br. 20-21; Reply Br. 6-11.

agree that Booth teaches this limitation. Appellant has not made any effort to show error in the Examiner's findings and reasoning. Therefore, we affirm the rejection of dependent claim 4 for the reasons previously discussed and for the reasons stated by the Examiner.

### Claim 6: Shaughnessy / Hazama / Booth

With respect to claim 6, Appellant argues<sup>40</sup> that there is no teaching or suggestion in Shaughnessy, Shaughnessy in view of Hazama, or in Booth, of "sorting the symbolic representations of dates using a numerical-order sort." (Feb. Response 14; see also Feb. Response 16, 21; Dec. Response 40-42, 75.)

However, we agree with the Examiner (Ans. 15; OA 17; FF 32-38) that Booth teaches or suggests the disputed limitation of dependent claim 6. Appellant has not made any effort to show error in the Examiner's findings and reasoning.

Appellant also repeats the same arguments with respect to the allegedly improper combination of references as discussed *supra* with respect to claim 4. (Dec. Response 42.) We do not find these arguments persuasive for the same reasons discussed with respect to claim 4.

Therefore, we affirm the rejection of dependent claim 6 for the reasons stated by the Examiner.

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<sup>&</sup>lt;sup>40</sup> See generally App. Br. 12-13; Reply Br. 6-11.

#### Claim 6: Ohms / Hazama / Booth

With respect to claim 6, Appellant argues<sup>41</sup> there is no teaching or suggestion in Ohms of "*sorting the symbolic representations of dates* using a numerical-order sort." (Feb. Response 23; *see also* Feb. Response 24-26; Dec. Response 51-54.)

However, as pointed out by the Examiner (Ans. 23-24; OA 112; *see also* FF 32-38), it was not Ohms but rather Booth that was relied upon to teach the disputed limitation of dependent claim 6. As discussed *supra*, we agree that Booth teaches this limitation. Appellant has not made any effort to show error in the Examiner's findings and reasoning. Therefore, we affirm the rejection of dependent claim 6 for the reasons previously discussed and for the reasons stated by the Examiner.

# Claim 8: Shaughnessy / Hazama / Booth

With respect to claim 8, Appellant argues<sup>42</sup> that there is no teaching or suggestion in Shaughnessy, Shaughnessy in view of Hazama, or Booth, of "selecting  $Y_A$   $Y_B$  *such that*  $Y_B$  *is* O (zero)." (Feb. Response 14; *see also* Feb. Response 16, 20-21; Dec. Response 40-42, 76-77.)

However, we agree with the Examiner (Ans. 16-17; OA 17-18; FF 31-36) that Booth teaches or suggests the disputed limitation of dependent claim 8. Appellant has not made any effort to show error in the

<sup>&</sup>lt;sup>41</sup> See generally App. Br. 20-21; Reply Br. 6-11.

<sup>&</sup>lt;sup>42</sup> See generally App. Br. 12-13; Reply Br. 6-11.

Examiner's findings and reasoning. Therefore, we affirm the rejection of dependent claim 8 for the reasons stated by the Examiner.

Appellant also repeats the same arguments with respect to the allegedly improper combination of references as discussed *supra* with respect to claim 4. (Dec. Response 42.) We do not find these arguments persuasive for the same reasons discussed with respect to claim 4.

### Claim 8: Ohms/Hazama/Booth

With respect to claim 8, Appellant argues<sup>43</sup> that there is no teaching or suggestion in Ohms of "selecting  $Y_A$   $Y_B$  *such that*  $Y_B$  *is*  $\theta$  (zero)." (Feb. Response 24; *see also* Feb. Response 23, 25; Dec. Response 51-54.)

However, as pointed out by the Examiner (Ans. 23-24; OA 112-113; *see also* FF 31-36), it was not Ohms but rather Booth that was relied upon to teach the disputed limitation of dependent claim 8. As discussed *supra*, we agree that Booth teaches this limitation. Appellant has not made any effort to show error in the Examiner's findings and reasoning. Therefore, we affirm the rejection of dependent claim 8 for the reasons previously discussed and for the reasons stated by the Examiner.

### Summary

Accordingly, we conclude that Appellant has not shown that the Examiner erred in rejecting claims 4, 6, and 8 under 35 U.S.C. § 103(a).

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<sup>&</sup>lt;sup>43</sup> See generally App. Br. 20-21; Reply Br. 6-11.

### Claims 11-15

Claims 11-15 stand rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy, Hazama, and Booth (FA 4; OA 18-23) and as being obvious over Ohms, Hazama, and Booth (FA 9; OA 113-117).

Appellant argues<sup>44</sup> that there is "no teaching or suggestion in Shaughnessy, Hazama, Ohms or Booth, or any combination of these references of the claimed invention as recited in any of the claims 11-15" for the reasons previously argued with respect to claims 1-10. (Feb. Response 27; *see also* Feb. Response 26, Dec. Response 42-43, 51-52.)

We agree with the Examiner (OA 18-23, 113-117) that the applied prior art teaches or suggests the disputed limitations of claims 11-15. Appellant has not made any additional effort to show error in the Examiner's findings and reasoning. Therefore, for the reasons previously discussed with respect to claims 1-10 and for the reasons stated by the Examiner, we affirm the rejection of claims 11-15.

# Claim 68

Claim 68 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy and Hazama (FA 7; OA 81-84) and as being obvious over Ohms and Hazama (FA 12; OA 164-166).

Appellant argues<sup>45</sup> that the applied references "do not teach or suggest, separately or collectively, 'reformatting the symbolic representation

<sup>&</sup>lt;sup>44</sup> See generally App. Br. 13, 21; Reply Br. 6-11.

<sup>45</sup> See generally App. Br. 17, 26; Reply Br. 6-11.

of each symbolic representation of a date in at least one date field in the database, without the addition of any new date field to the database ... in order to facilitate processing of the reformatted symbolic representations ... by running a program on the reformatted symbolic representation of each of the dates' as recited in claim 68." (Feb. Response 36; *see also* Dec. Response 48-54)

However, we agree with the Examiner (OA 81-84, 164-166) that the applied prior art teaches or suggests the disputed limitations of claim 68. Appellant has not made any effort to show error in the Examiner's findings and reasoning. Therefore, we affirm the rejection of claim 68 for the reasons stated by the Examiner.

### Claim 69

Claim 69 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy and Hazama (FA 7; OA 84-86) and as being obvious over Ohms, Hazama, and Booth (FA 13; OA 166-169.)

Appellant argues<sup>46</sup> that "the claim recites 'sorting the reformatted symbolic representations ... and running a program on the reformatted symbolic representations of each of the dates,' which is not taught or suggested by these references, separately or collectively" and also relies on "the same arguments as made with respect to claim 68." (Feb. Response 36; see also Dec. Response 48-54.)

<sup>&</sup>lt;sup>46</sup> See generally App. Br. 18, 26; Reply Br. 6-11.

However, we agree with the Examiner (OA 84-86, 166-169) that the applied prior art teaches or suggests the disputed limitations of claim 69. Appellant has not made any effort to show error in the Examiner's findings and reasoning. Therefore, we affirm the rejection of claim 69 for the reasons stated by the Examiner and for the reasons previously discussed with respect to claim 68.

## Claim 73

Claim 73 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy and Hazama (FA 8; OA 96-98) and as being obvious over Ohms and Hazama (FA 13; OA 176-178).

Appellant argues<sup>47</sup> that "neither Ohms, Shaughnessy, Booth nor Hazama, separately or collectively, teaches or suggests 'determining a century designator ... for each symbolic representation of a date in the database' and 'reformatting the symbolic representation of the date ... to facilitate further processing of the dates,' as recited in claim 73." (Feb. Response 37-38; *see also* Dec. Response 49-54.)

However, we agree with the Examiner (OA 96-98, 176-178) that the applied prior art teaches or suggests the disputed limitations of claim 73. Appellant has not made any effort to show error in the Examiner's findings and reasoning. Therefore, we affirm the rejection of claim 73 for the reasons stated by the Examiner.

<sup>&</sup>lt;sup>47</sup> See generally App. Br. 19, 27-28; Reply Br. 6-11.

## Claim 74

Claim 74 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy, Hazama, and Booth (FA 8; OA 98-101) and as being obvious over Ohms, Hazama, and Booth (FA 14; OA 178-180).

Appellant argues<sup>48</sup> that "neither Ohms, Shaughnessy, Booth nor Hazama, separately or collectively, teaches or suggests 'determining a century designator ... for each symbolic representation of a date in the database' and 'reformatting the symbolic representation of the date ... to facilitate further processing of the dates,' and 'sorting the dates in the [reformatted] form,' as recited in claim 74." (Feb. Response 38; *see also* Dec. Response 49-54.)

However, we agree with the Examiner (OA 98-101, 178-180) that the applied prior art teaches or suggests the disputed limitations of claim 74. Appellant has not made any effort to show error in the Examiner's findings and reasoning. Therefore, we affirm the rejection of claim 74 for the reasons stated by the Examiner.

#### Claim 75

Claim 75 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy and Hazama (FA 8; OA 101-104) and as being obvious over Ohms, Hazama, and Booth (FA 14; OA 180-182).

<sup>&</sup>lt;sup>48</sup> See generally App. Br. 19, 28; Reply Br. 6-11.

With respect to claim 75, Appellant argues<sup>49</sup> "neither Ohms, Shaughnessy, Booth nor Hazama, separately or collectively, teaches or suggests 'determining a century designator ... for each symbolic representation of a date in the database' and 'reformatting the symbolic representation of each symbolic representation of a date in the database, without the addition of any new data field to the database ... to facilitate further processing of the reformatted symbolic representations of each of the symbolic representations of each of the dates,' as recited in claim 75." (Feb. Response 38; *see also* Dec. Response 49-54.)

However, we agree with the Examiner (OA 101-104, 180-182) that the applied prior art teaches or suggests the disputed limitations of claim 75. Appellant has not made any effort to show error in the Examiner's findings and reasoning. Therefore, we affirm the rejection of claim 75 for the reasons stated by the Examiner.

# Claim 76

Claim 76 stands rejected under 35 U.S.C. § 103(a) as being obvious over Shaughnessy, Hazama, and Booth (FA 9; OA 104-107) and as being obvious over Ohms, Hazama, and Booth (FA 14; OA 182-184).

With respect to claim 76, Appellant argues<sup>50</sup> that "the same arguments that applied to claim 75 apply to claim 76 and in addition the claim recited

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<sup>&</sup>lt;sup>49</sup> See generally App. Br. 19-20, 28; Reply Br. 6-11.

<sup>&</sup>lt;sup>50</sup> See generally App. Br. 20, 28-29; Reply Br. 6-11.

'sorting the dates in the [reformatted] form ....'" (Feb. Response 38; *see also* Dec. Response 49-54.)

However, we agree with the Examiner (OA 104-107, 182-184) that the applied prior art teaches or suggests the disputed limitations of claim 76. Appellant has not made any effort to show error in the Examiner's findings and reasoning. Therefore, we affirm the rejection of claim 75 for the reasons stated by the Examiner and for the reasons previously discussed with respect to claim 75.

### Claims 16-67 and 70-72

We do not reach the merits of the Examiner's rejections of claims 16-67 and 70-72 under 35 U.S.C. § 103(a) or the merits of the Shaughnessy, Hazama, Booth, and Ohms references with respect to these claims at this time. Rather, we vacate the outstanding rejection under 35 U.S.C. § 103(a) because, as discussed *supra*, claims 16-67 and 70-72 fail to satisfy the requirements of 35 U.S.C. § 112, second paragraph.

Before a proper review of the prior art rejections can be performed, the subject matter encompassed by the claims on appeal must be reasonably understood without resort to speculation. *See In re Steele*, 305 F.2d 859, 862 (CCPA 1962) (A prior art rejection cannot be sustained if the hypothetical person of ordinary skill in the art would have to make speculative assumptions concerning the meaning of claim language.); *see also In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970 ("If no reasonably definite meaning can be ascribed to certain terms in the claim, the subject matter

does not become obvious-the claim becomes indefinite."). Presently, speculation and conjecture must be utilized by us and by the artisan inasmuch as claims 16-67 and 70-72 on appeal do not adequately reflect what the disclosed invention is under the second paragraph of 35 U.S.C. § 112. As discussed *supra*, the recited limitations of "collectively further processing," "collectively sorting," "collectively manipulating," "running a program collectively," and "windowing" render these claims indefinite.

# Appellant's Request to Dismiss the '6541 Proceeding

Appellant requests that we dismiss the '6541 proceeding, in which the Examiner found that the Saka reference, Japanese Published Patent Application 06-103133, raised a substantial new question of patentability as to claims 1-15. (App. Br. 8 & n.3; Reply Br. 6; *see also* Order Granting Request for Ex Parte Reexamination mailed April 21, 2003.) According to Appellant, Saka does not present a substantial new question of patentability because the Examiner has not used Saka to reject any of the claims. (App. Br. 8 & n.3; Reply Br. 6.) However, Appellant has not cited any authority to demonstrate that the Board has jurisdiction to decide this issue.

"The line of demarcation between appealable matters for the Board of Patent Appeals and Interferences (Board) and petitionable matters for the Director of the U.S. Patent and Trademark Office (Director) should be carefully observed. The Board will not ordinarily hear a question that should be decided by the Director on petition." (MPEP § 1201.)

In our view, we do not have the authority to rule on whether the Director properly granted the request for reexamination. The Director is given the authority to determine whether a substantial new question of patentability is raised. 35 U.S.C. § 303(a). "A substantive determination by the Director of the USPTO to institute reexamination pursuant to a finding that the prior art patents . . . raise a substantial new question of patentability is not subject to review by the courts until a final agency decision in the reexamination proceedings has issued." (MPEP § 2246 (citing *Joy Mfg. Co. v. Nat'l Mine Serv. Co.*, 810 F.2d 1127 (Fed. Cir. 1987), *Heinl v. Godici*, 143 F. Supp.2d 593 (E.D. Va. 2001), and *Patlex Corp. v. Quigg*, 680 F. Supp. 33 (D.D.C. 1988)).) We note that a petition under 37 C.F.R. § 1.181 may be filed "to vacate an *ultra vires* reexamination order." (MPEP § 2246.)

Because this is a petitionable matter for the Director and not an appealable matter for the Board, we decline to decide this issue.

#### CONCLUSIONS

Based on the findings of facts and analysis above, we conclude that:

- (1) Appellant has not shown that the Examiner erred in rejecting claims 16-67 and 70-72 under 35 U.S.C. § 112, first paragraph.
- (2) Appellant has shown that the Examiner erred in rejecting claims 69, 75, and 76 under 35 U.S.C. § 112, first paragraph.
- (3) Appellant has not shown that the Examiner erred in rejecting claims 16-67 and 70-72 under 35 U.S.C. § 112, second paragraph.

- (4) Appellant has shown that the Examiner erred in rejecting claims 1-15, 68, 69, and 73-76 under 35 U.S.C. § 112, second paragraph.
- (5) Appellant has not shown that the Examiner erred in rejecting claims 1-15, 68, 69, and 73-76 under 35 U.S.C. § 103.

#### **DECISION**

The rejection of claims 16-67 and 70-72 under 35 U.S.C. § 112, first paragraph, is affirmed.

The rejection of claims 69, 75, and 76 under 35 U.S.C. § 112, first paragraph, is reversed.

The rejection of claims 16-67 and 70-72 under 35 U.S.C. § 112, second paragraph, is affirmed.

The rejection of claims 1-15, 68, 69, and 73-76 under 35 U.S.C. § 112, second paragraph, is reversed.

The rejection of claims 1-15, 68, 69, and 73-76 for obviousness under 35 U.S.C. § 103 is affirmed.

The rejection of claims 16-67 and 70-72 for obviousness under 35 U.S.C. § 103 is vacated.

At least one ground of rejection for each rejected claim has been affirmed.

Requests for extensions of time in this *ex parte* reexamination proceeding are governed by 37 C.F.R. § 1.550(c). *See* 37 C.F.R. § 41.50(f).

### **AFFIRMED**

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Patent Owner:

BRUCE DICKENS DICKENS-SOEDER 2000 LLC 3892 CEDRON STREET IRVINE, CA 92606

Counsel for Third Party Requesters:

ROSS F. HUNT, JR. C/O LARSON AND TAYLOR 1199 NORTH FAIRFAX STREET SUITE 900 ALEXANDRIA, VA 22314

PAUL E. CRAWFORD CONNOLLY BOVE LODGE & HUTZ LLP 1200 MARKET STREET WILMINGTON, DE 19801

STANLEY B. GREEN CONNOLLY BOVE LODGE & HUTZ LLP 1990 M STREET NW SUITE 800 WASHINGTON, DC 20036